

Figure 1

Fig 2

64 66 70 68 72

50

58

SYSTEM
MEMORY

52

CPU

USER
INTERFACE

56

PCI BRIDGE

59

PCI BUS

57

PCI ADAPTER

DISK DRIVE

54

PCI BRIDGE

60

HOST
INTERFACE
FPGA

62

TRANSMIT
RECEIVER
FPGA

64

BEAMFORMER
FPGA

66

DOPPLER
PROCESSOR
FPGA

70

RF
PROCESSOR
FPGA

68

SCAN CONVERSION
FPGA

72

Figure 3

FIG 4A

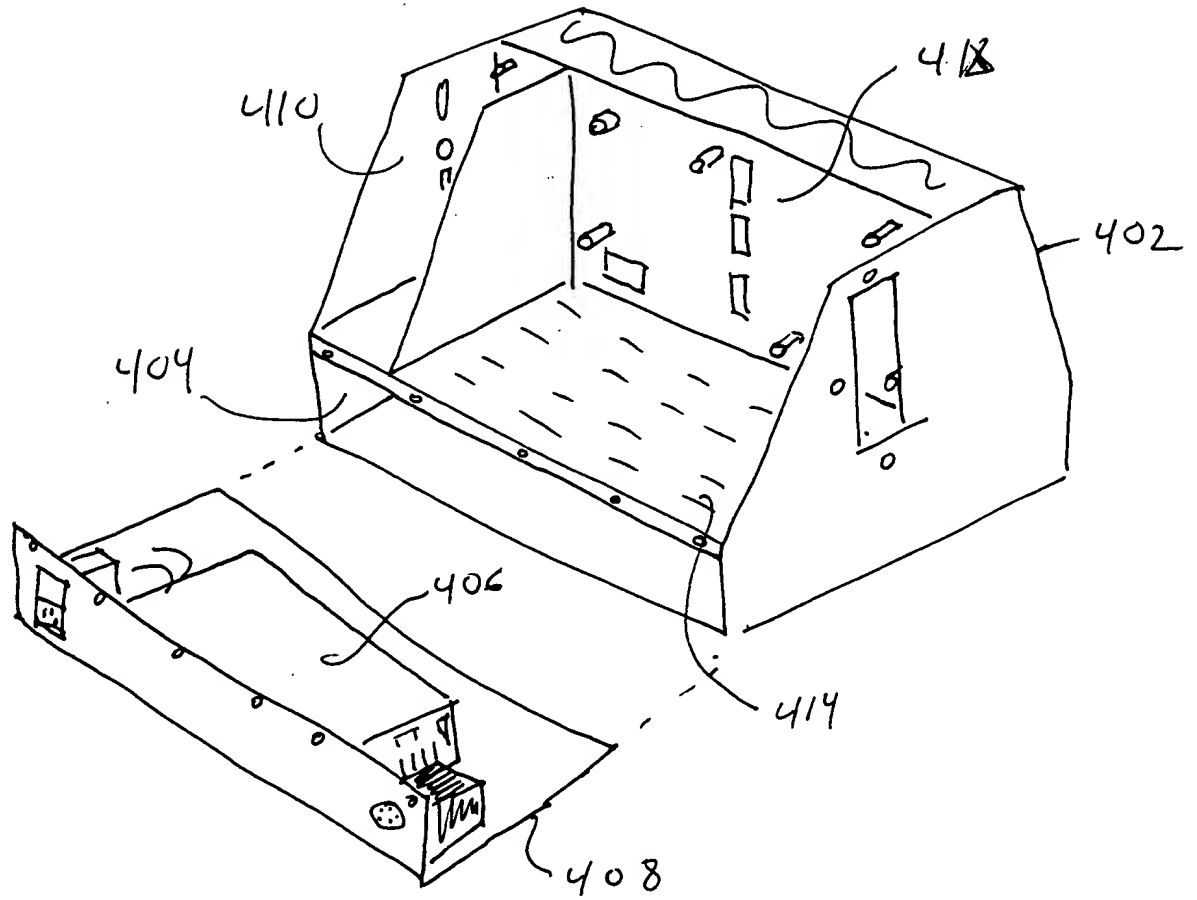
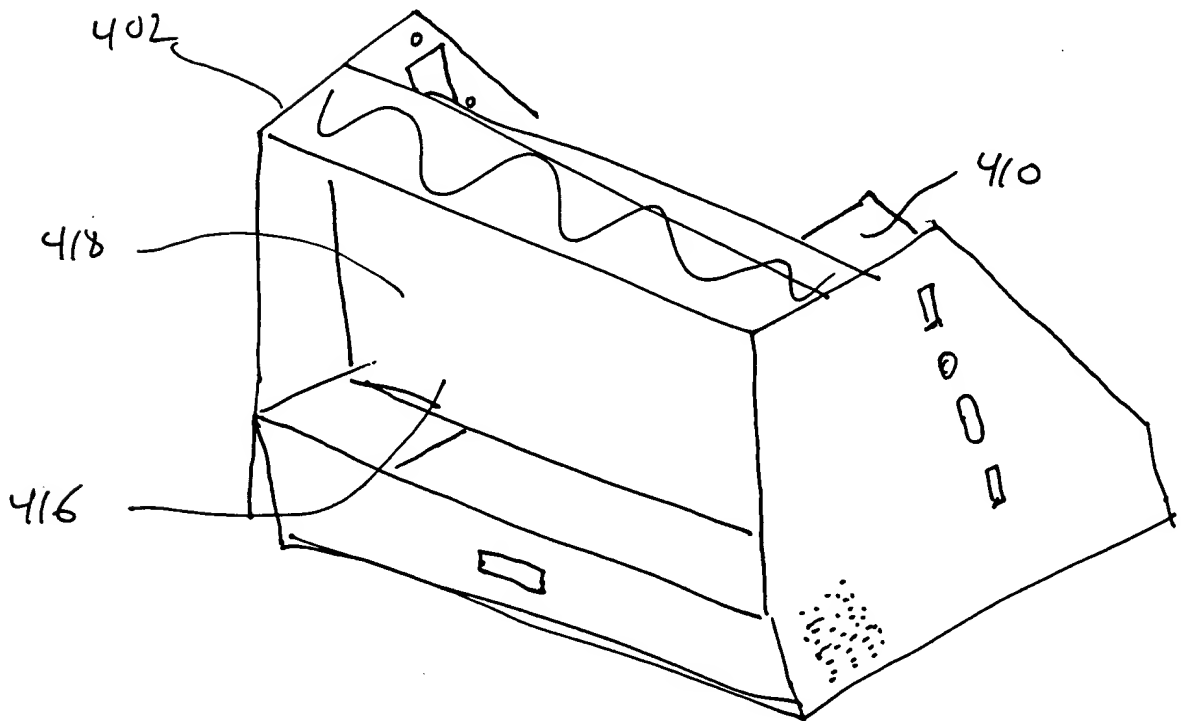


FIG 4B



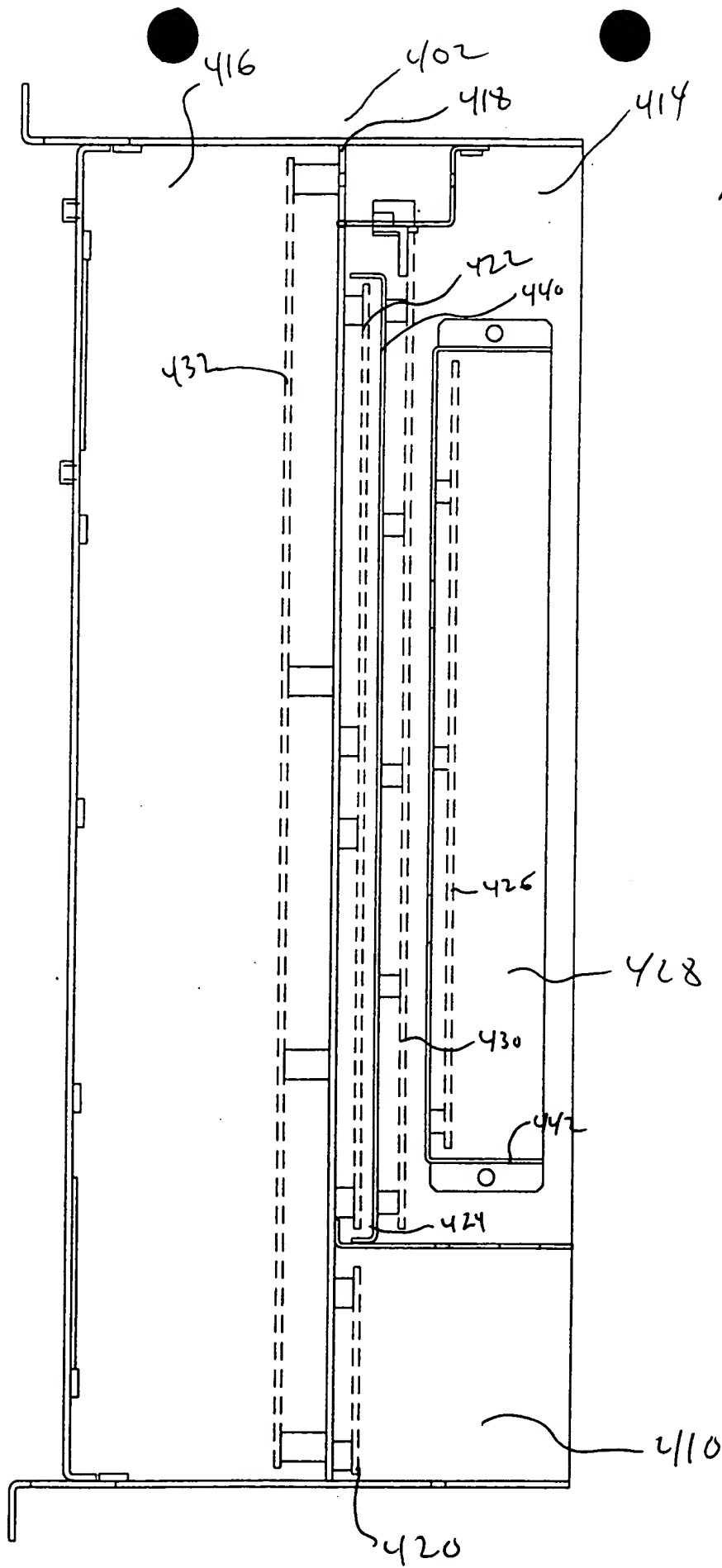


FIG 4D

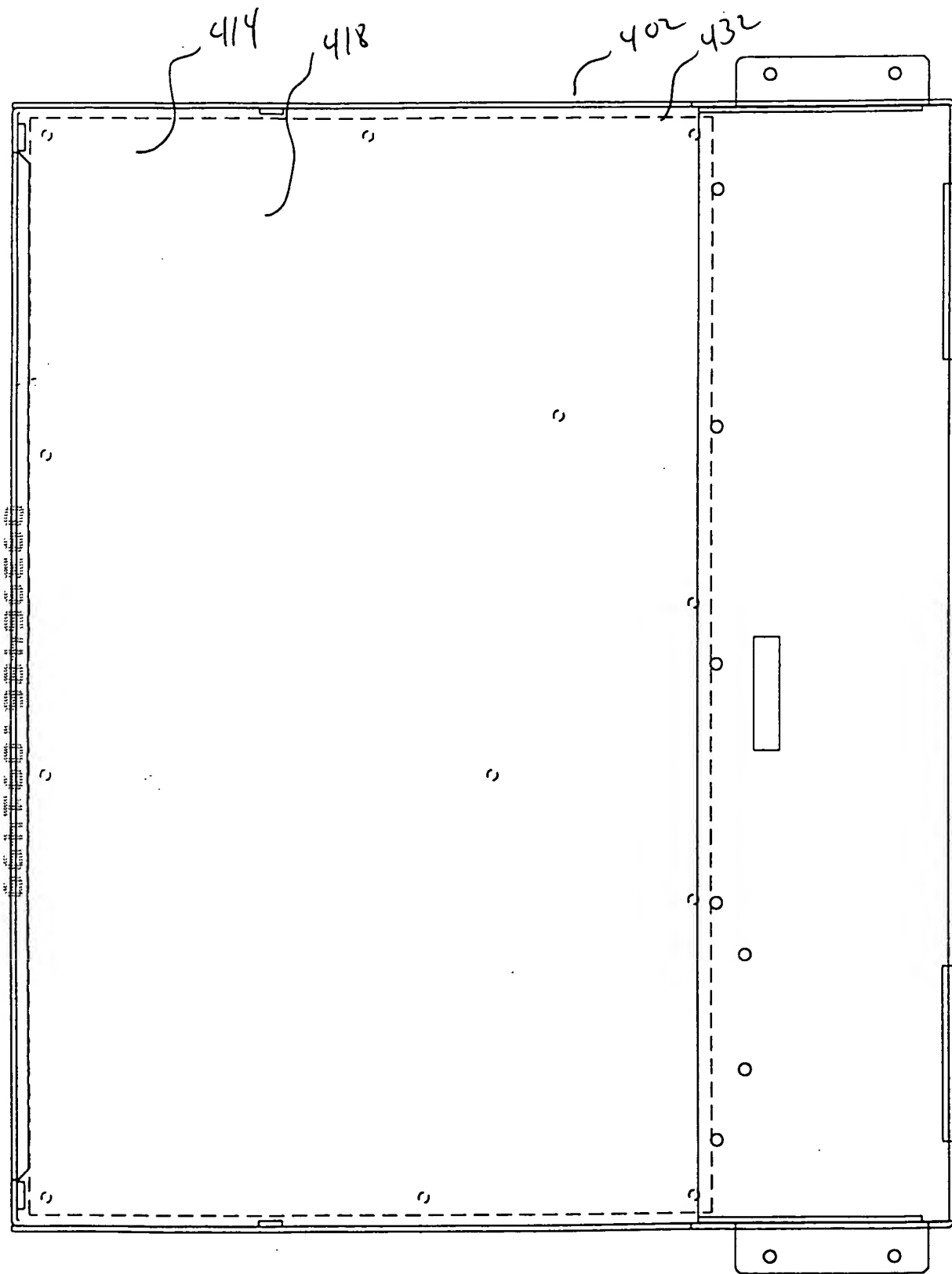


FIG 4E

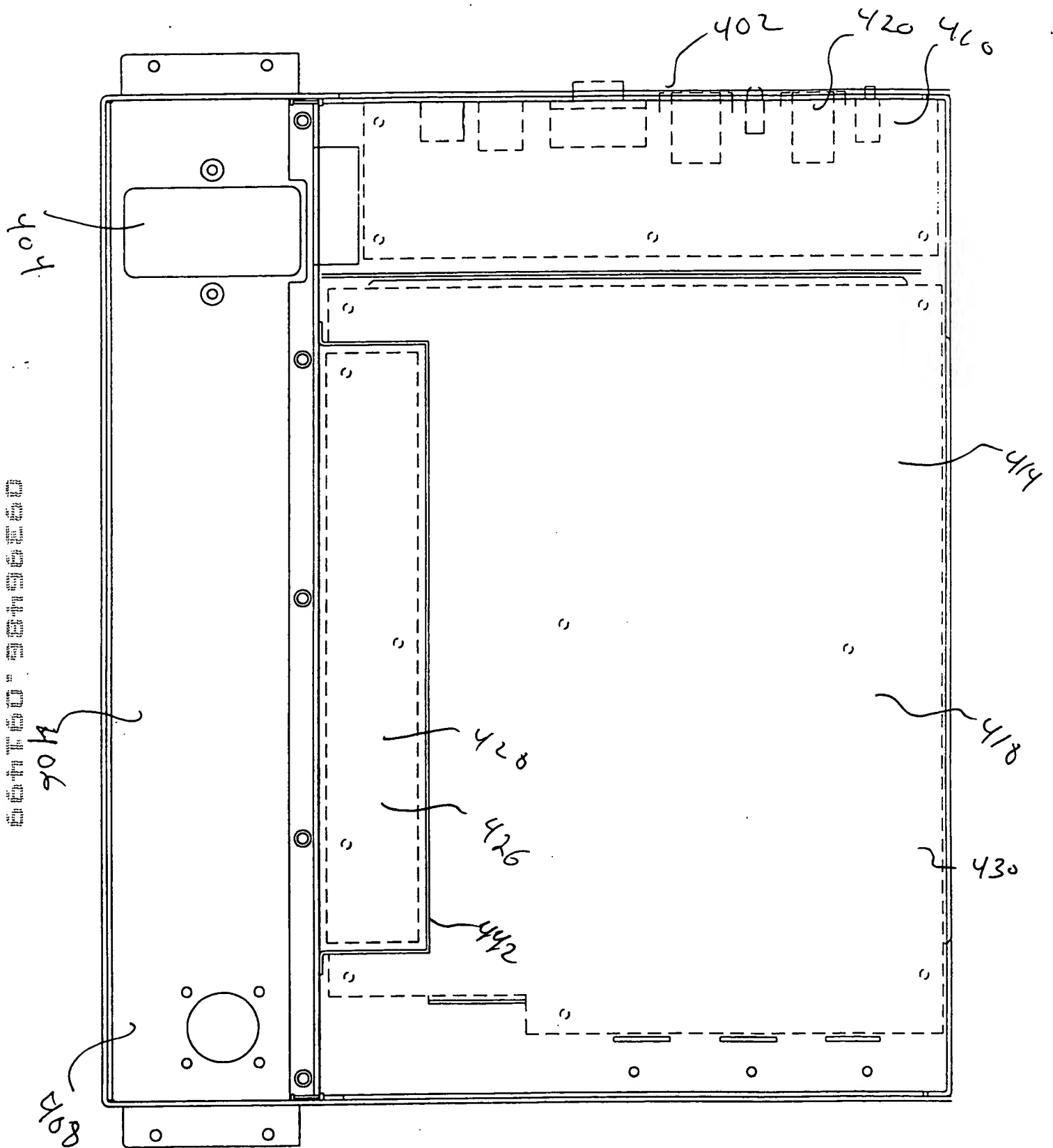
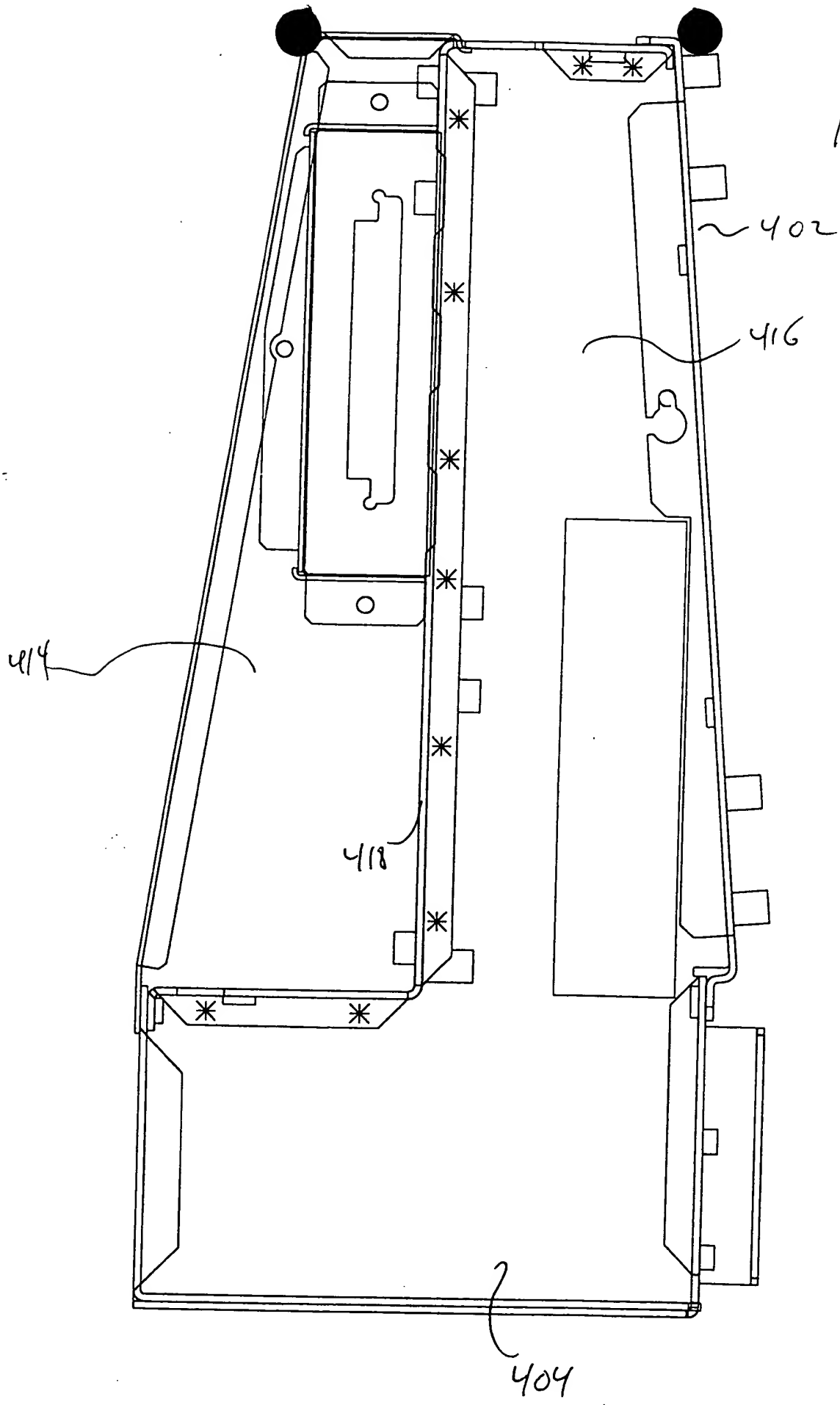


FIG 4F

FIG 4F



Year	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

F1646

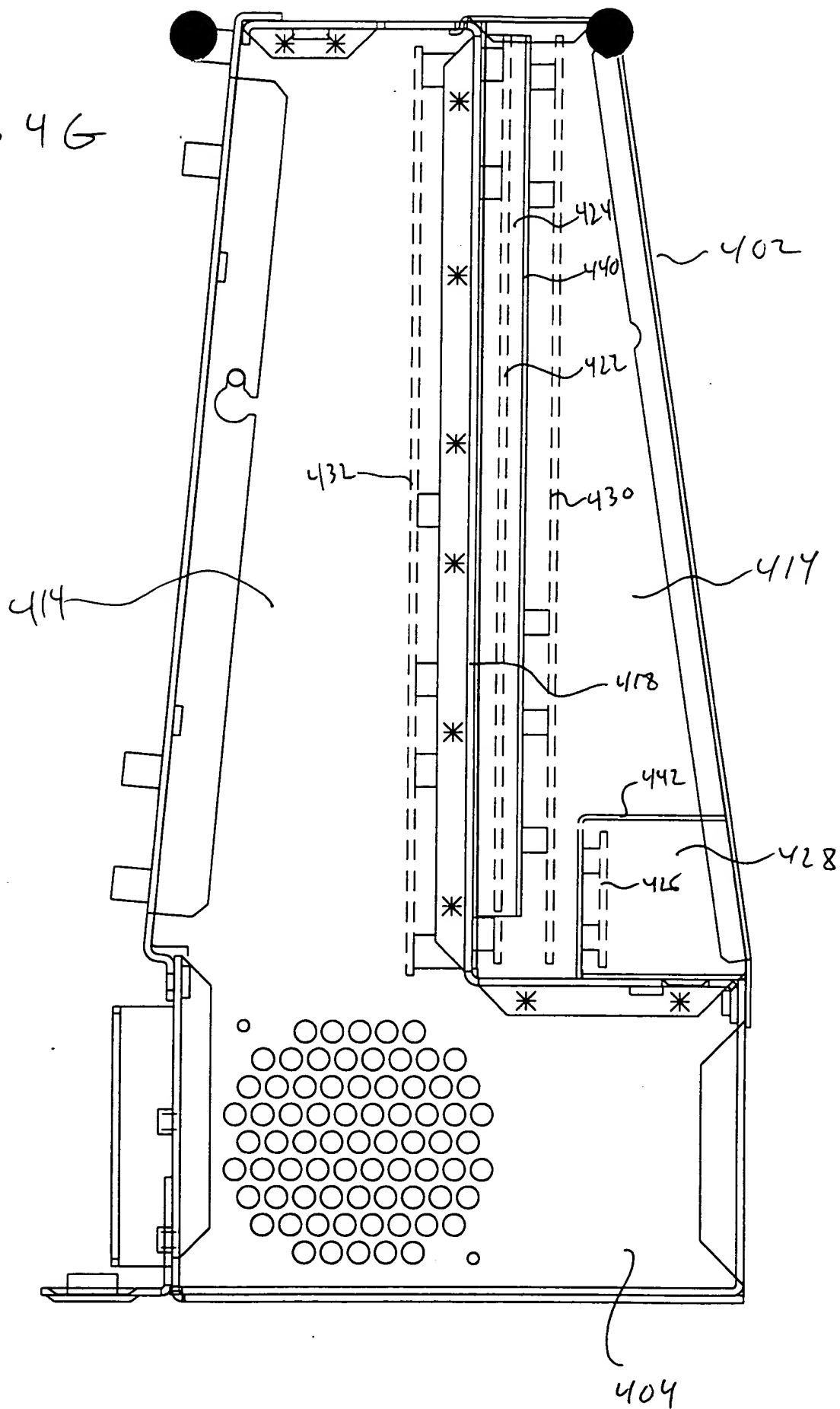


FIG 4H

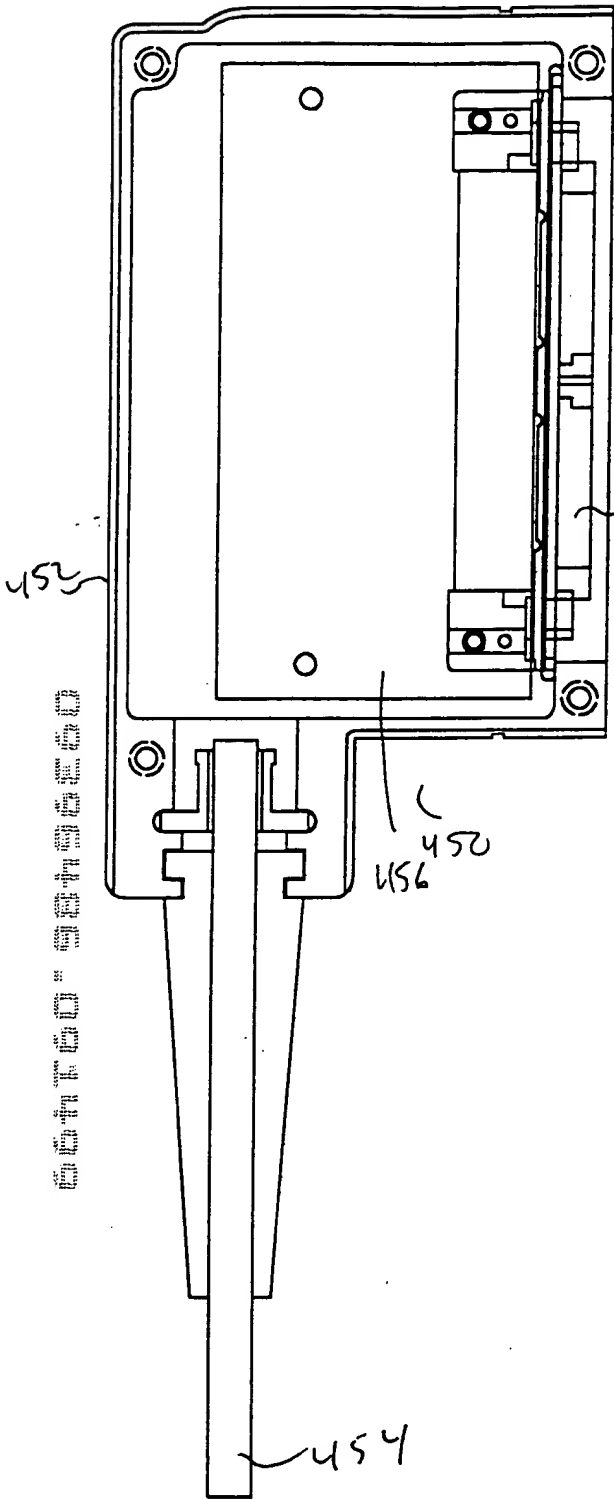


FIG 4I

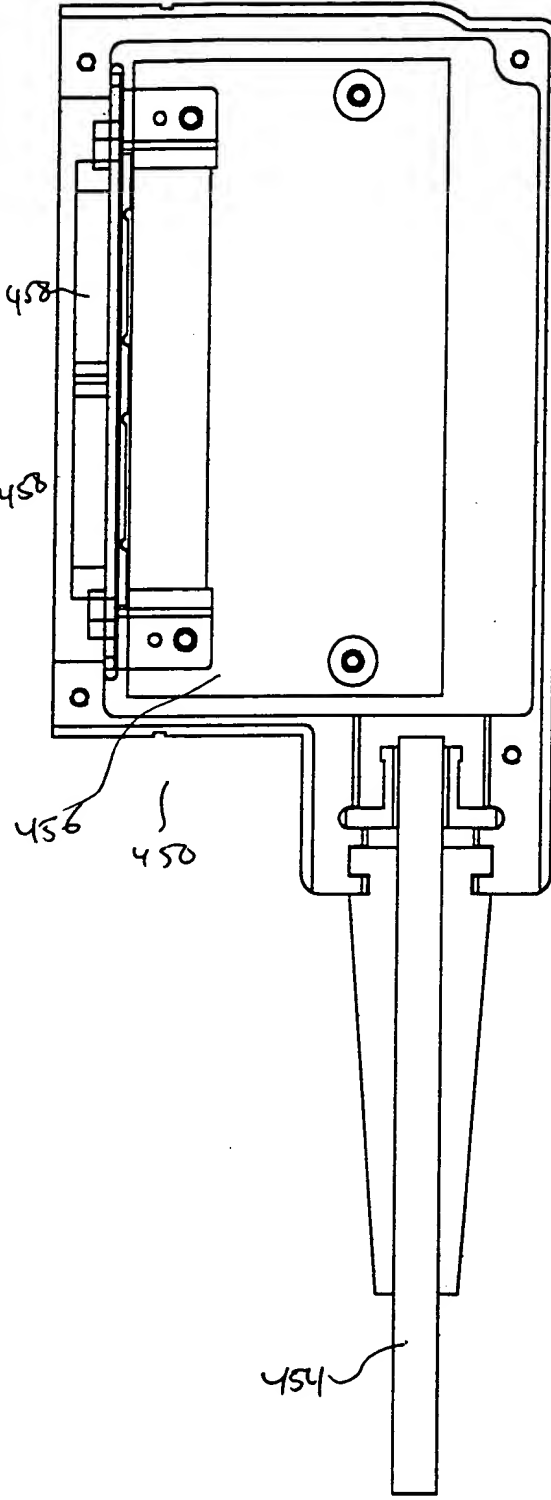


FIG 4J

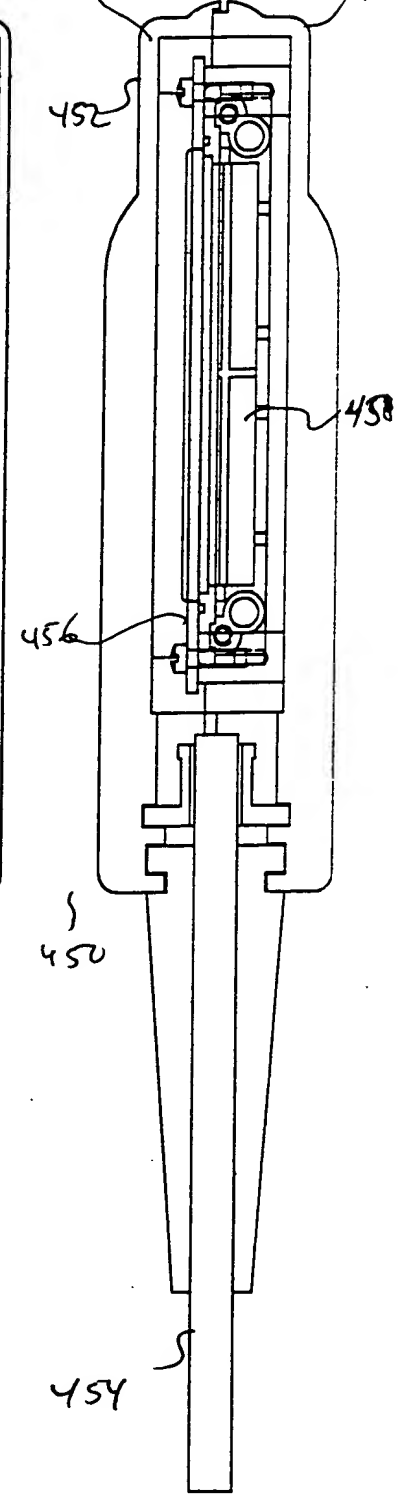
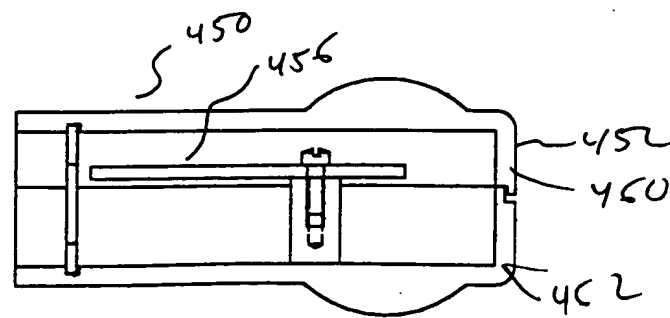


FIG 4K



1113346
 1113347
 1113348
 1113349
 1113350
 1113351
 1113352
 1113353
 1113354
 1113355
 1113356
 1113357
 1113358
 1113359
 1113360
 1113361
 1113362
 1113363
 1113364
 1113365
 1113366
 1113367
 1113368
 1113369
 1113370
 1113371
 1113372
 1113373
 1113374
 1113375
 1113376
 1113377
 1113378
 1113379
 1113380
 1113381
 1113382
 1113383
 1113384
 1113385
 1113386
 1113387
 1113388
 1113389
 1113390
 1113391
 1113392
 1113393
 1113394
 1113395
 1113396
 1113397
 1113398
 1113399
 1113400
 1113401
 1113402
 1113403
 1113404
 1113405
 1113406
 1113407
 1113408
 1113409
 1113410
 1113411
 1113412
 1113413
 1113414
 1113415
 1113416
 1113417
 1113418
 1113419
 1113420
 1113421
 1113422
 1113423
 1113424
 1113425
 1113426
 1113427
 1113428
 1113429
 1113430
 1113431
 1113432
 1113433
 1113434
 1113435
 1113436
 1113437
 1113438
 1113439
 1113440
 1113441
 1113442
 1113443
 1113444
 1113445
 1113446
 1113447
 1113448
 1113449
 1113450
 1113451
 1113452
 1113453
 1113454
 1113455
 1113456
 1113457
 1113458
 1113459
 1113460
 1113461
 1113462
 1113463
 1113464
 1113465
 1113466
 1113467
 1113468
 1113469
 1113470
 1113471
 1113472
 1113473
 1113474
 1113475
 1113476
 1113477
 1113478
 1113479
 1113480
 1113481
 1113482
 1113483
 1113484
 1113485
 1113486
 1113487
 1113488
 1113489
 1113490
 1113491
 1113492
 1113493
 1113494
 1113495
 1113496
 1113497
 1113498
 1113499
 1113500
 1113501
 1113502
 1113503
 1113504
 1113505
 1113506
 1113507
 1113508
 1113509
 1113510
 1113511
 1113512
 1113513
 1113514
 1113515
 1113516
 1113517
 1113518
 1113519
 1113520
 1113521
 1113522
 1113523
 1113524
 1113525
 1113526
 1113527
 1113528
 1113529
 1113530
 1113531
 1113532
 1113533
 1113534
 1113535
 1113536
 1113537
 1113538
 1113539
 1113540
 1113541
 1113542
 1113543
 1113544
 1113545
 1113546
 1113547
 1113548
 1113549
 1113550
 1113551
 1113552
 1113553
 1113554
 1113555
 1113556
 1113557
 1113558
 1113559
 1113560
 1113561
 1113562
 1113563
 1113564
 1113565
 1113566
 1113567
 1113568
 1113569
 1113570
 1113571
 1113572
 1113573
 1113574
 1113575
 1113576
 1113577
 1113578
 1113579
 1113580
 1113581
 1113582
 1113583
 1113584
 1113585
 1113586
 1113587
 1113588
 1113589
 1113590
 1113591
 1113592
 1113593
 1113594
 1113595
 1113596
 1113597
 1113598
 1113599
 1113600
 1113601
 1113602
 1113603
 1113604
 1113605
 1113606
 1113607
 1113608
 1113609
 1113610
 1113611
 1113612
 1113613
 1113614
 1113615
 1113616
 1113617
 1113618
 1113619
 1113620
 1113621
 1113622
 1113623
 1113624
 1113625
 1113626
 1113627
 1113628
 1113629
 1113630
 1113631
 1113632
 1113633
 1113634
 1113635
 1113636
 1113637
 1113638
 1113639
 1113640
 1113641
 1113642
 1113643
 1113644
 1113645
 1113646
 1113647
 1113648
 1113649
 1113650
 1113651
 1113652
 1113653
 1113654
 1113655
 1113656
 1113657
 1113658
 1113659
 1113660
 1113661
 1113662
 1113663
 1113664
 1113665
 1113666
 1113667
 1113668
 1113669
 1113670
 1113671
 1113672
 1113673
 1113674
 1113675
 1113676
 1113677
 1113678
 1113679
 1113680
 1113681
 1113682
 1113683
 1113684
 1113685
 1113686

~~CONFIDENTIAL and PROPRIETARY~~

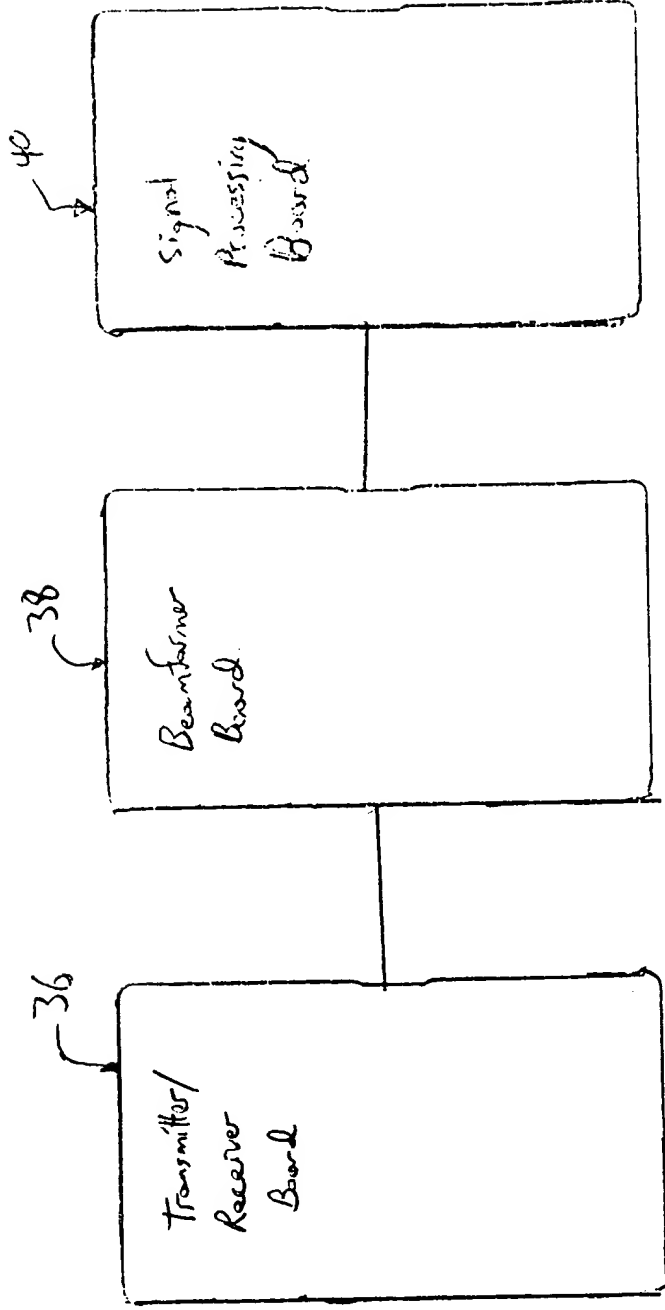


Figure 5

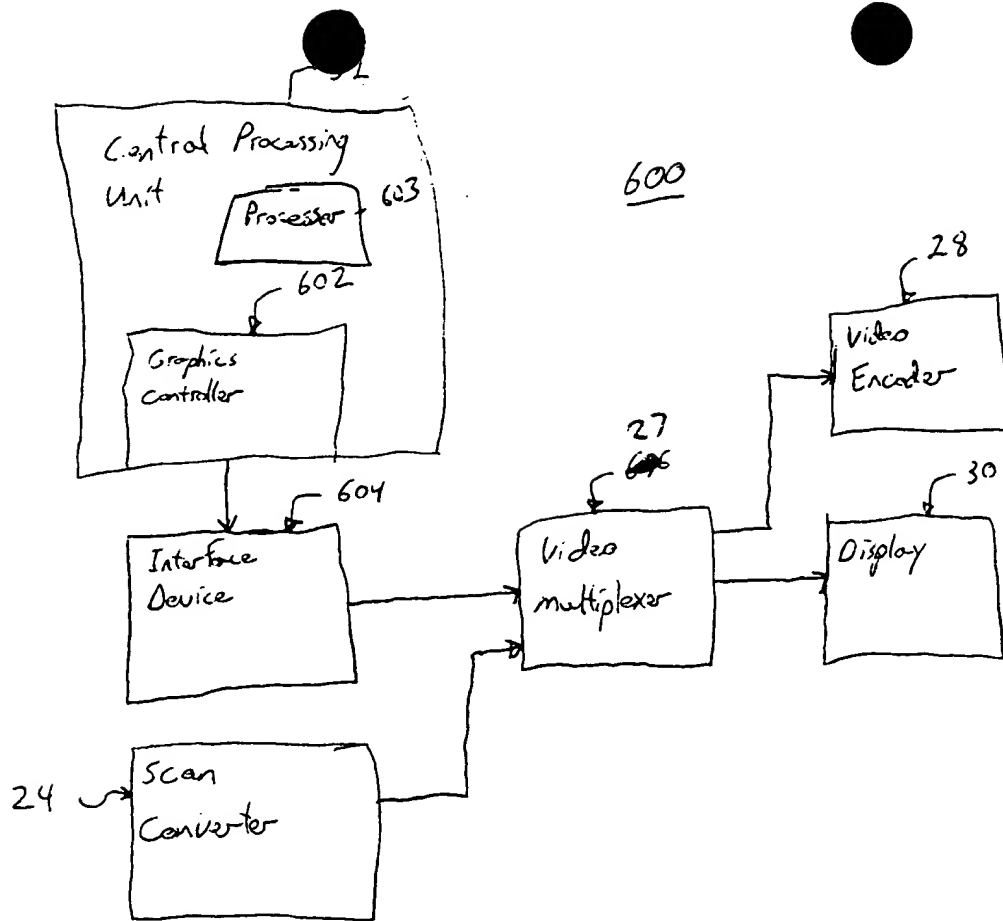


FIG. 6

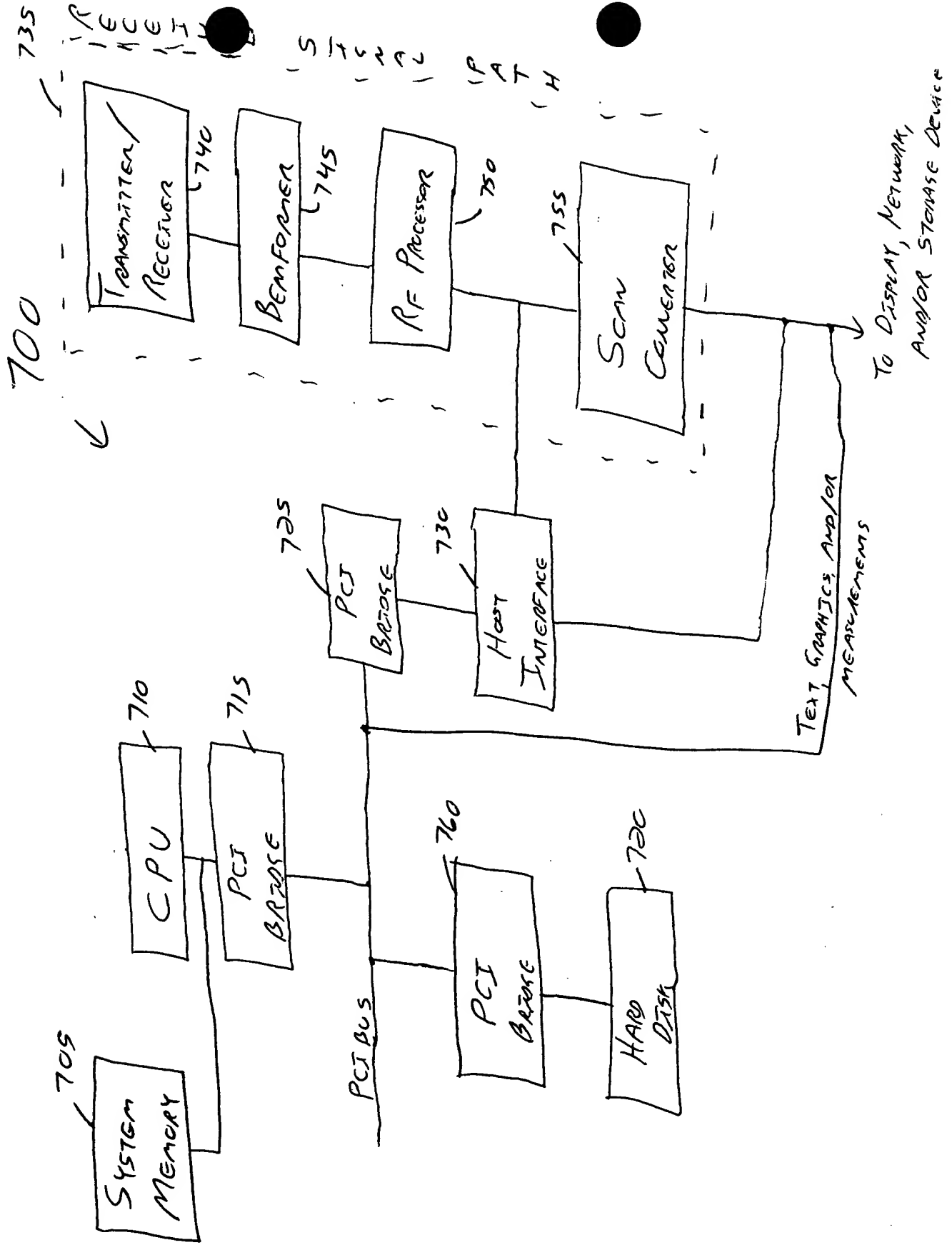


FIGURE 7

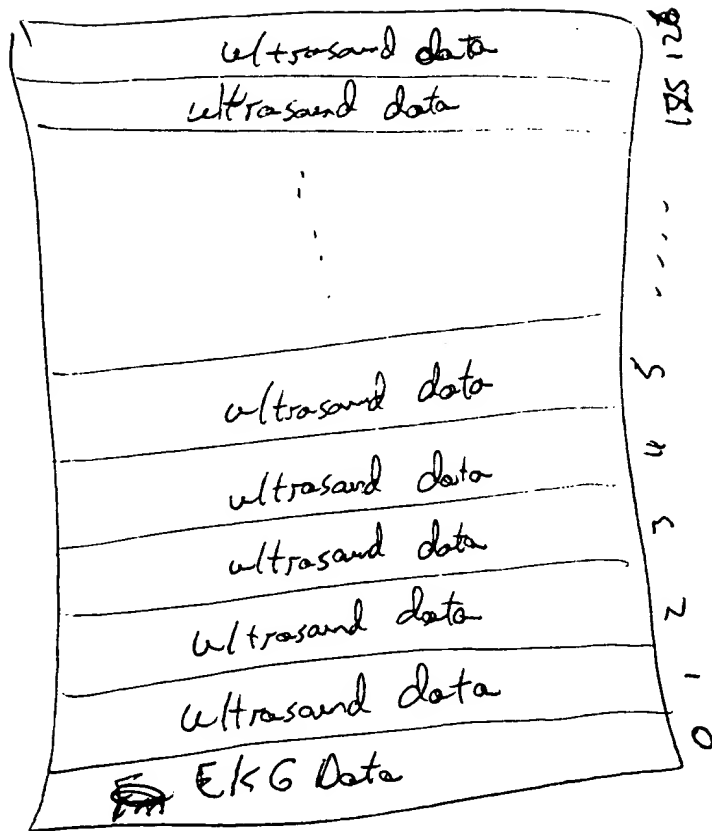


FIG. 8

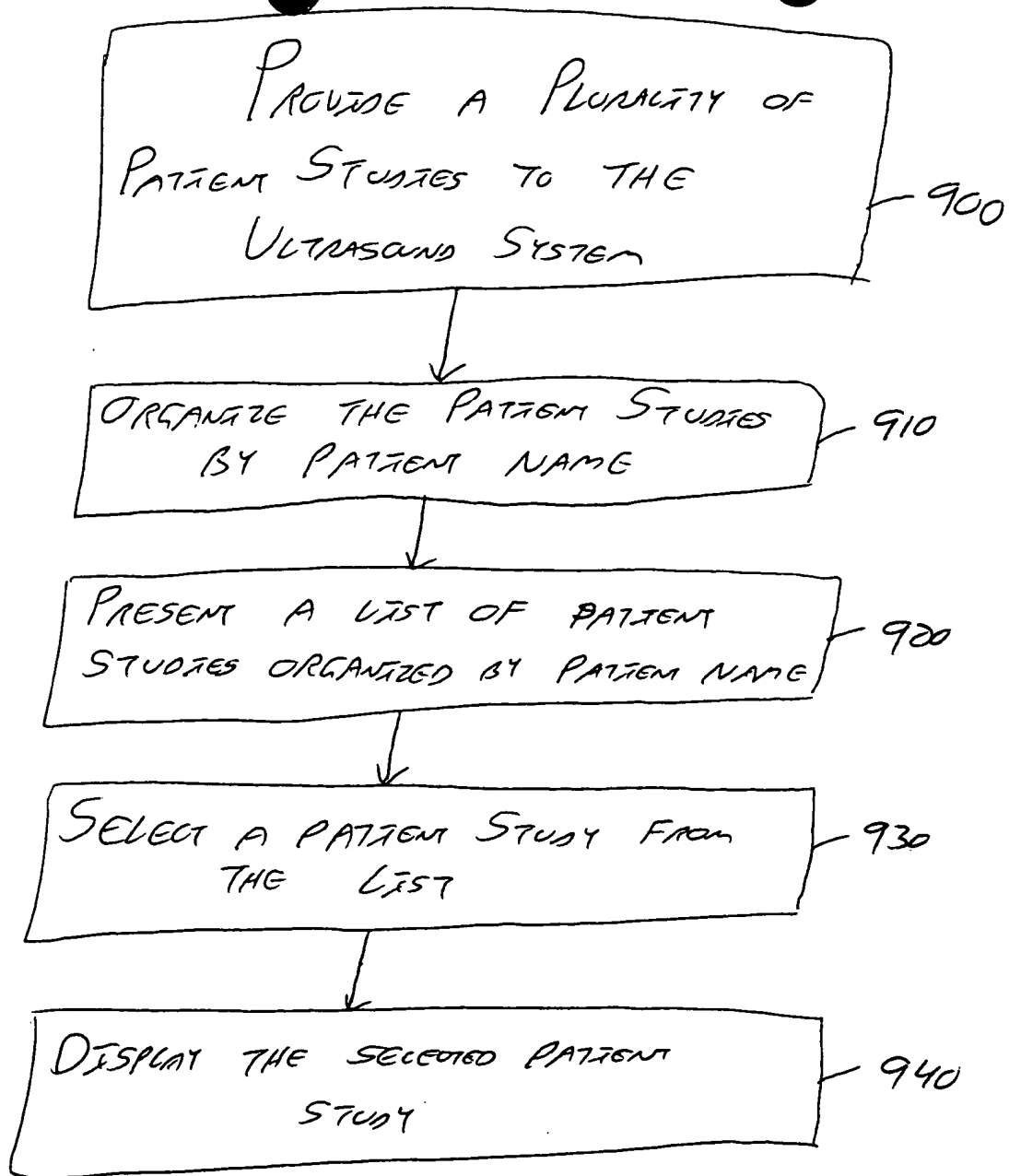


FIGURE 9

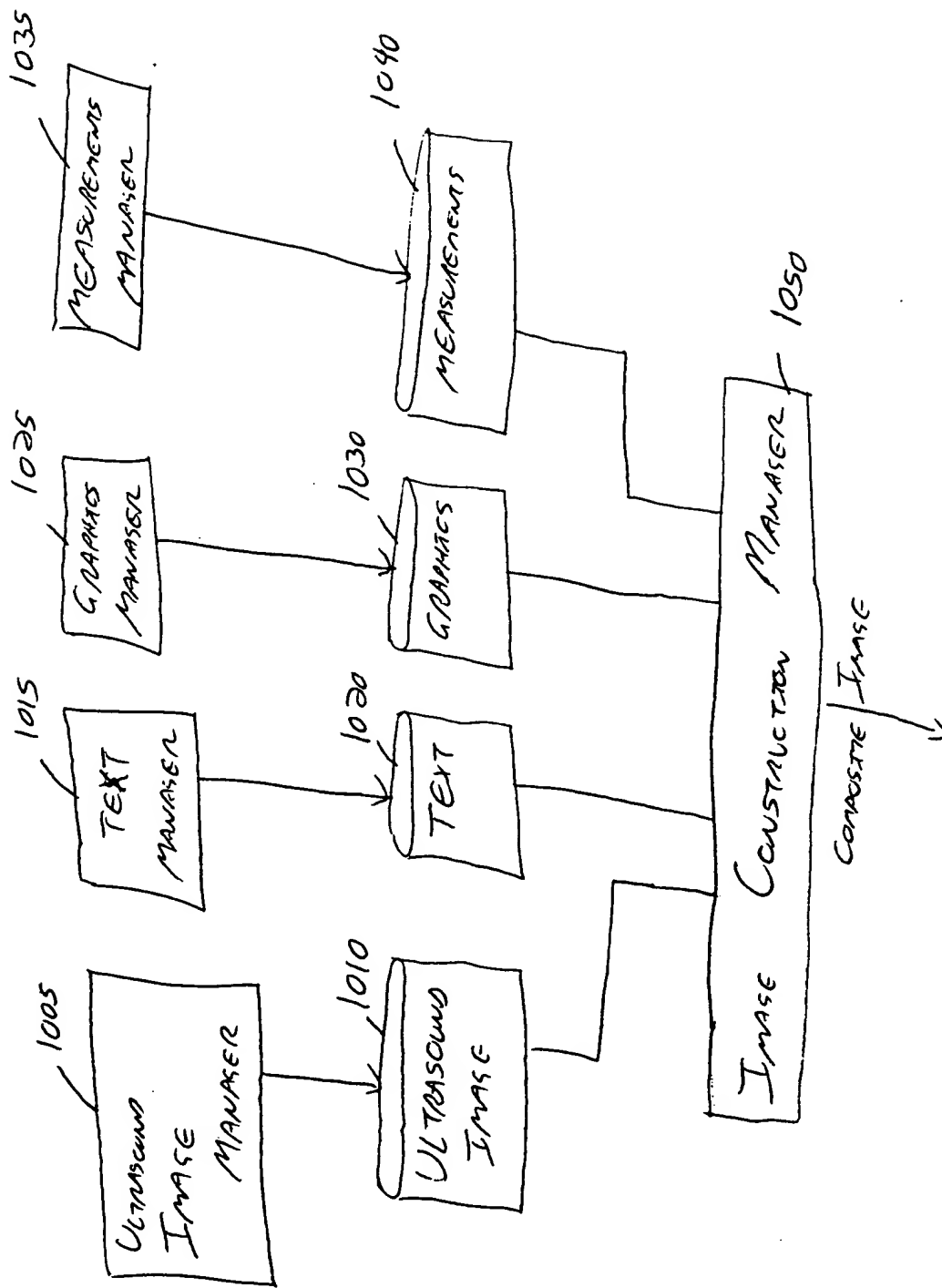


FIGURE 10

FIG 11

200

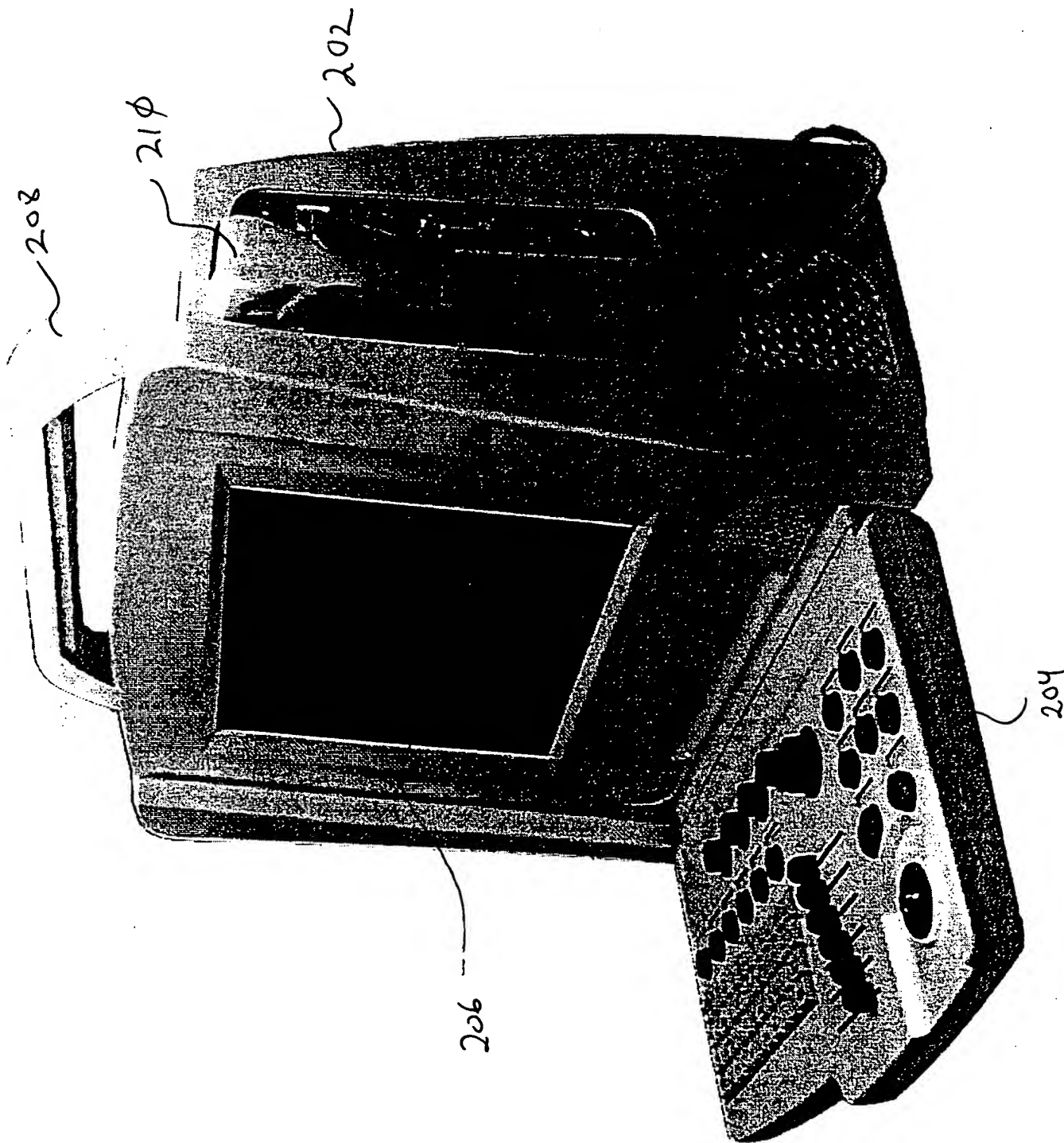


FIG 11

206

204

208

210

202

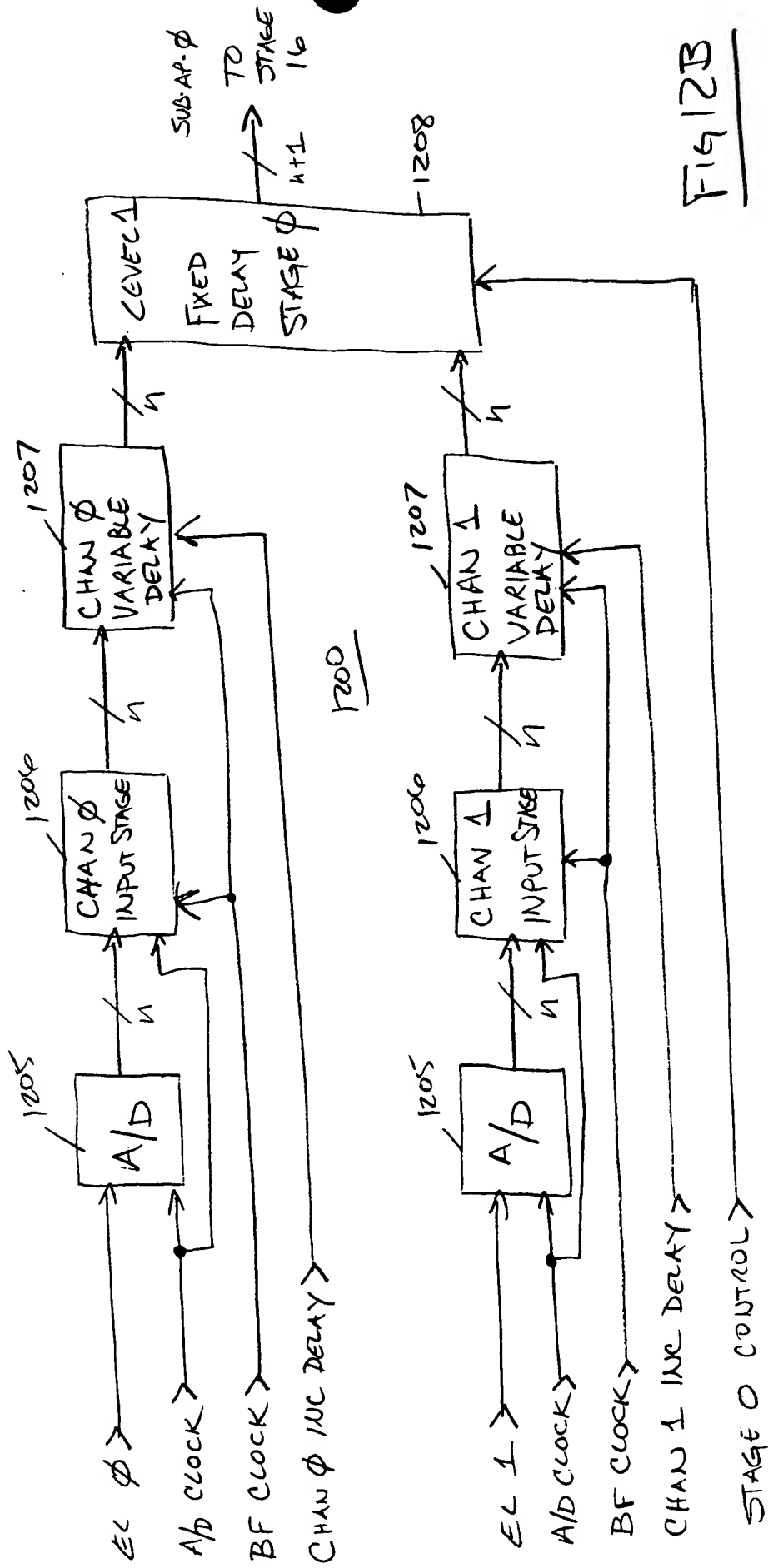


Fig 12B

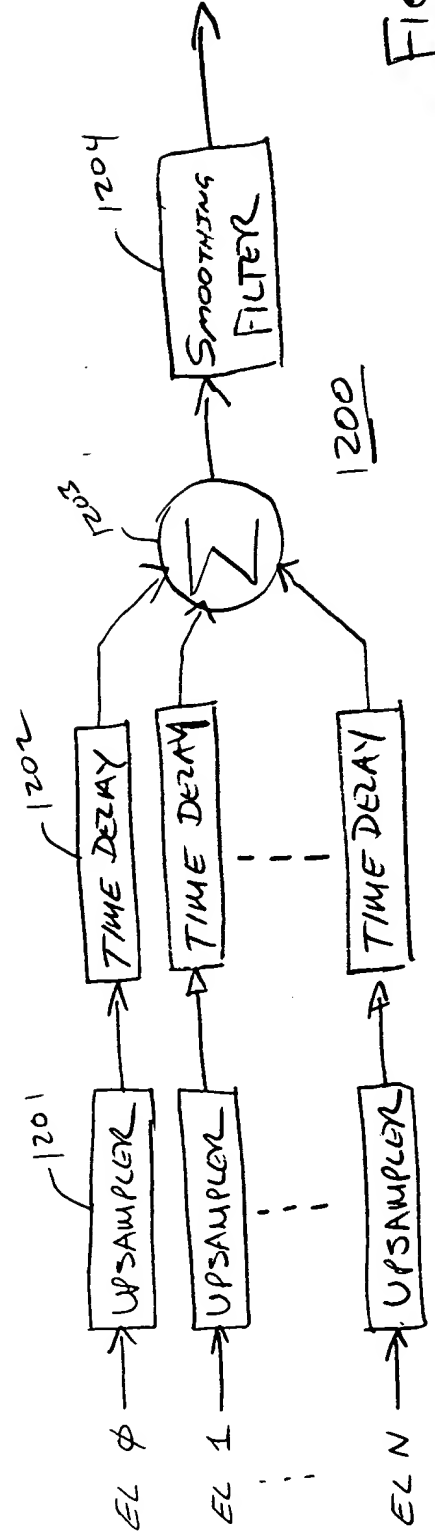
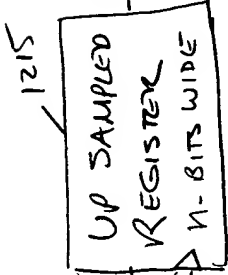
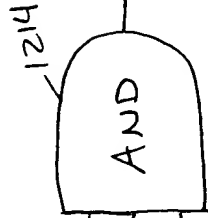
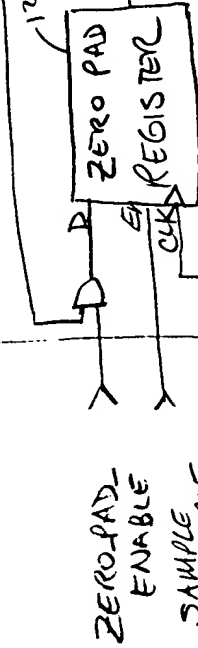
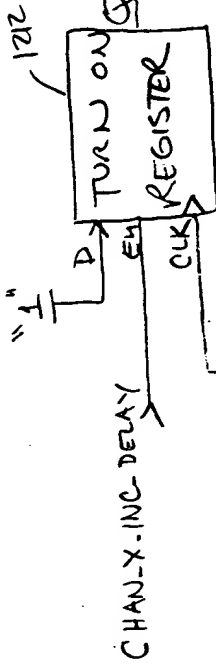
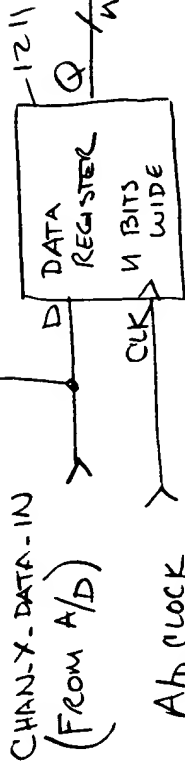
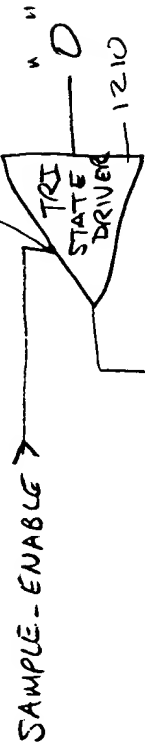


Fig 12A

OUTPUT ENABLE



CHAN-X-DATA
TO VARIABLE DELAY STAGE

1206

FIG 12C

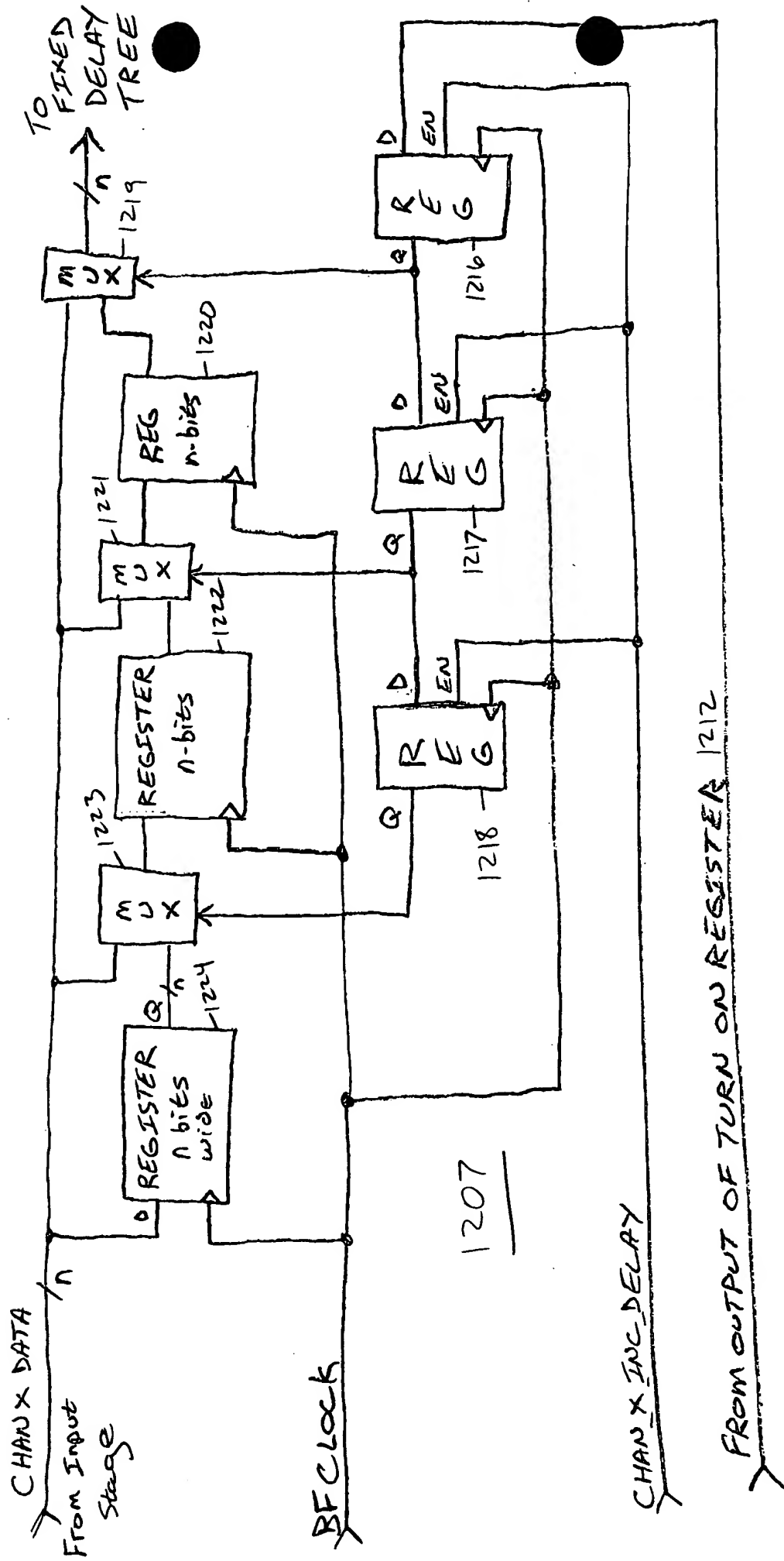


Fig 12D

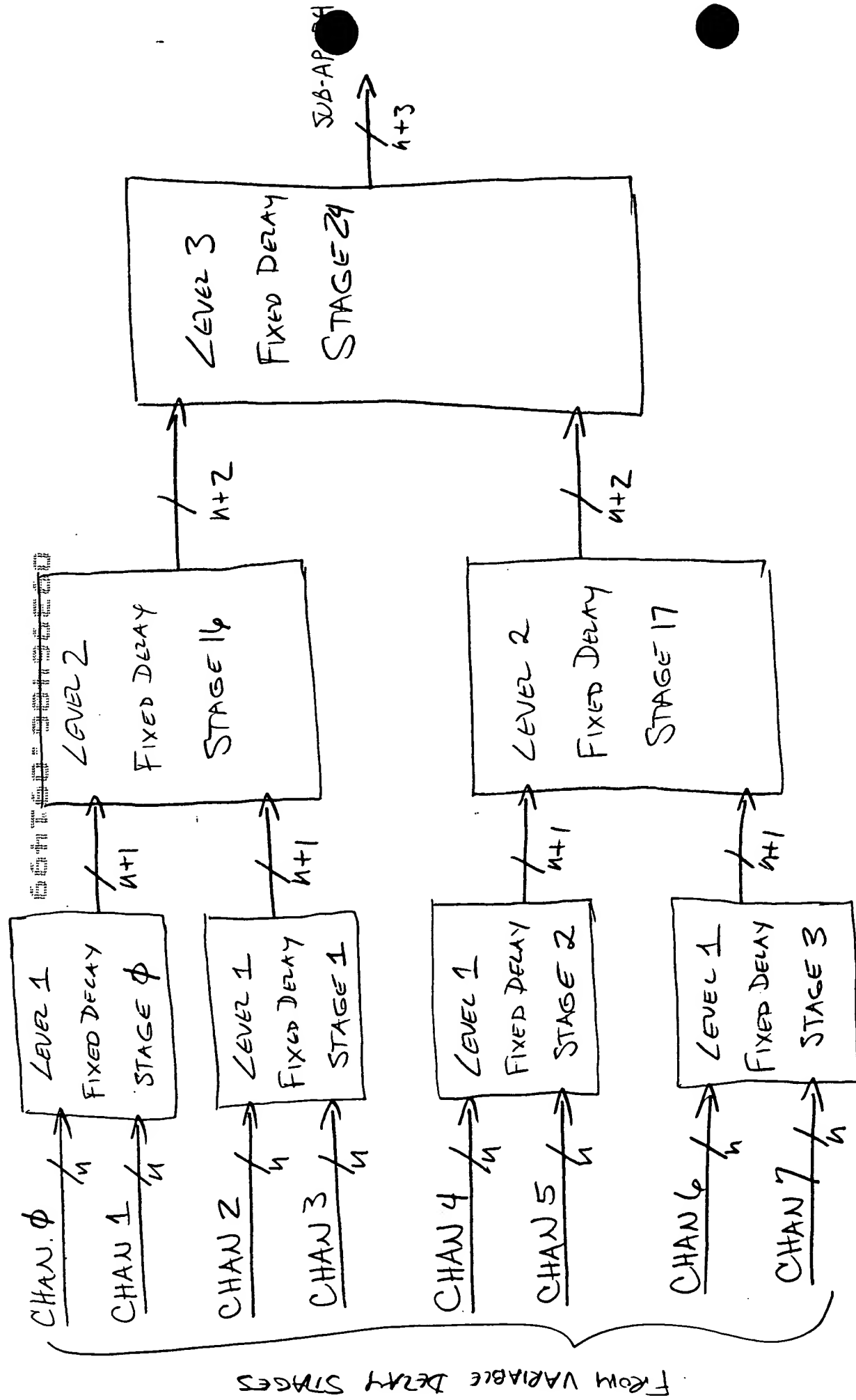


Fig 12E

FROM VARIABLE DELAY STAGES

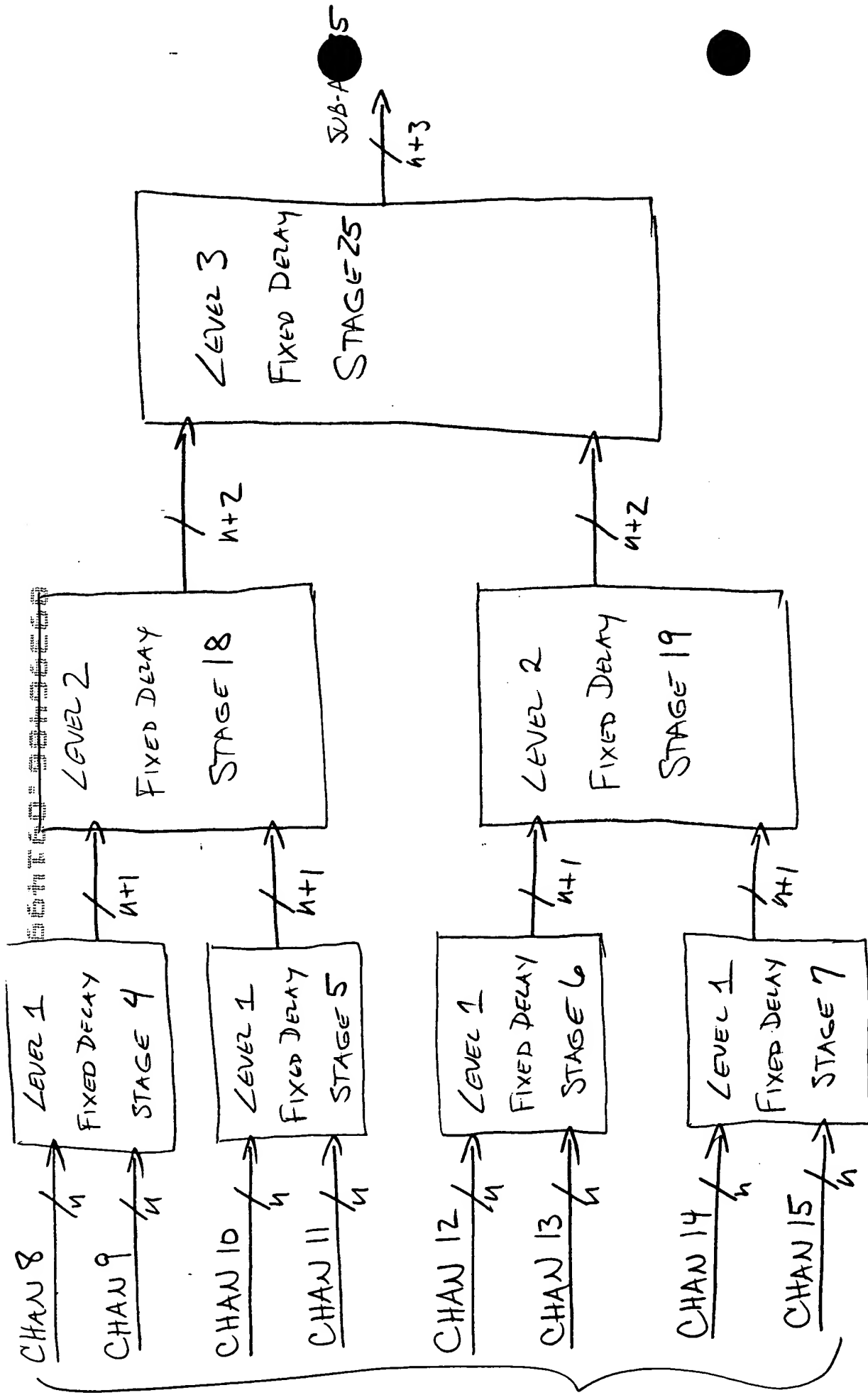


FIG 12 F

FROM VARIABLE DELAY STAGES

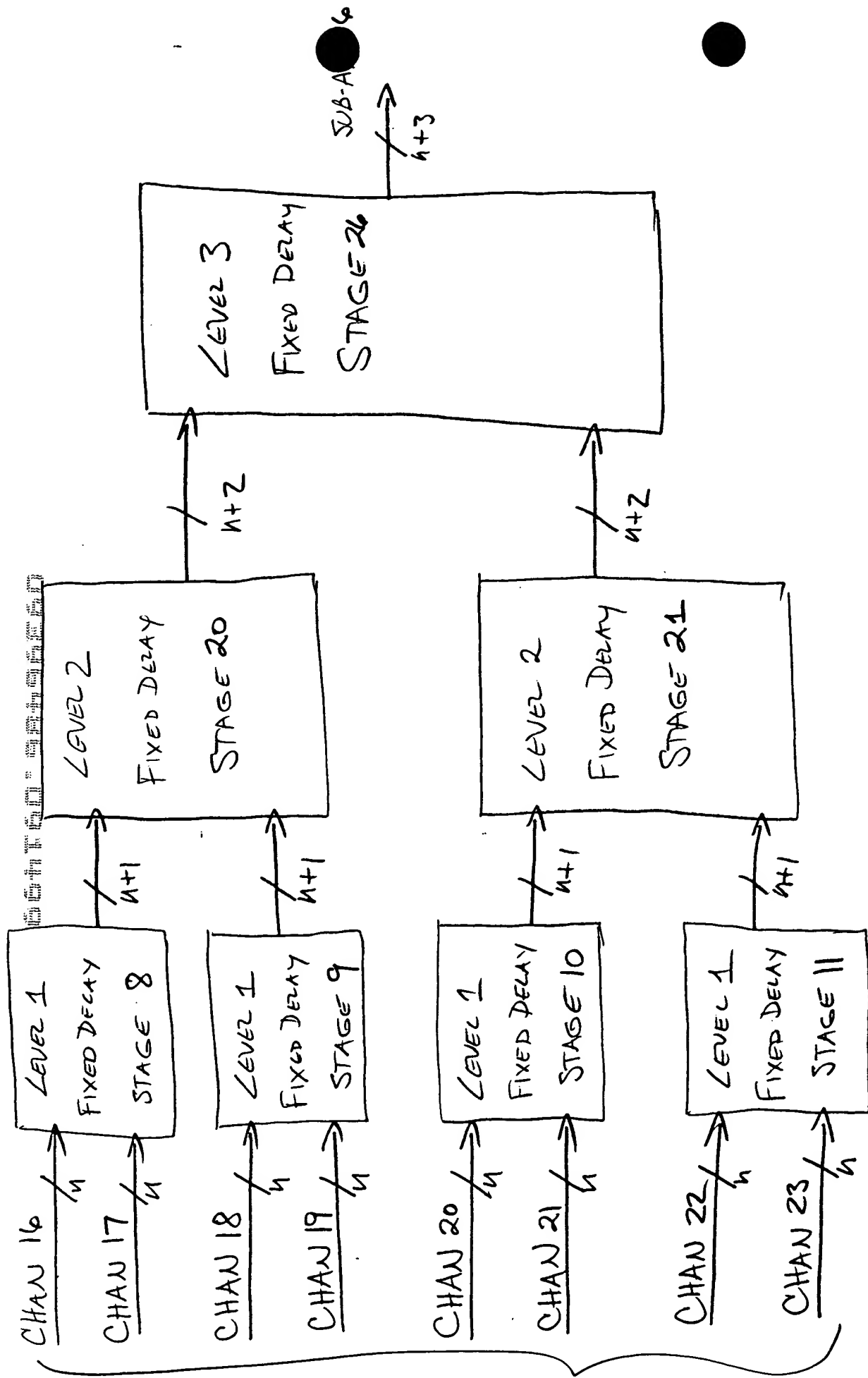


Fig 12G

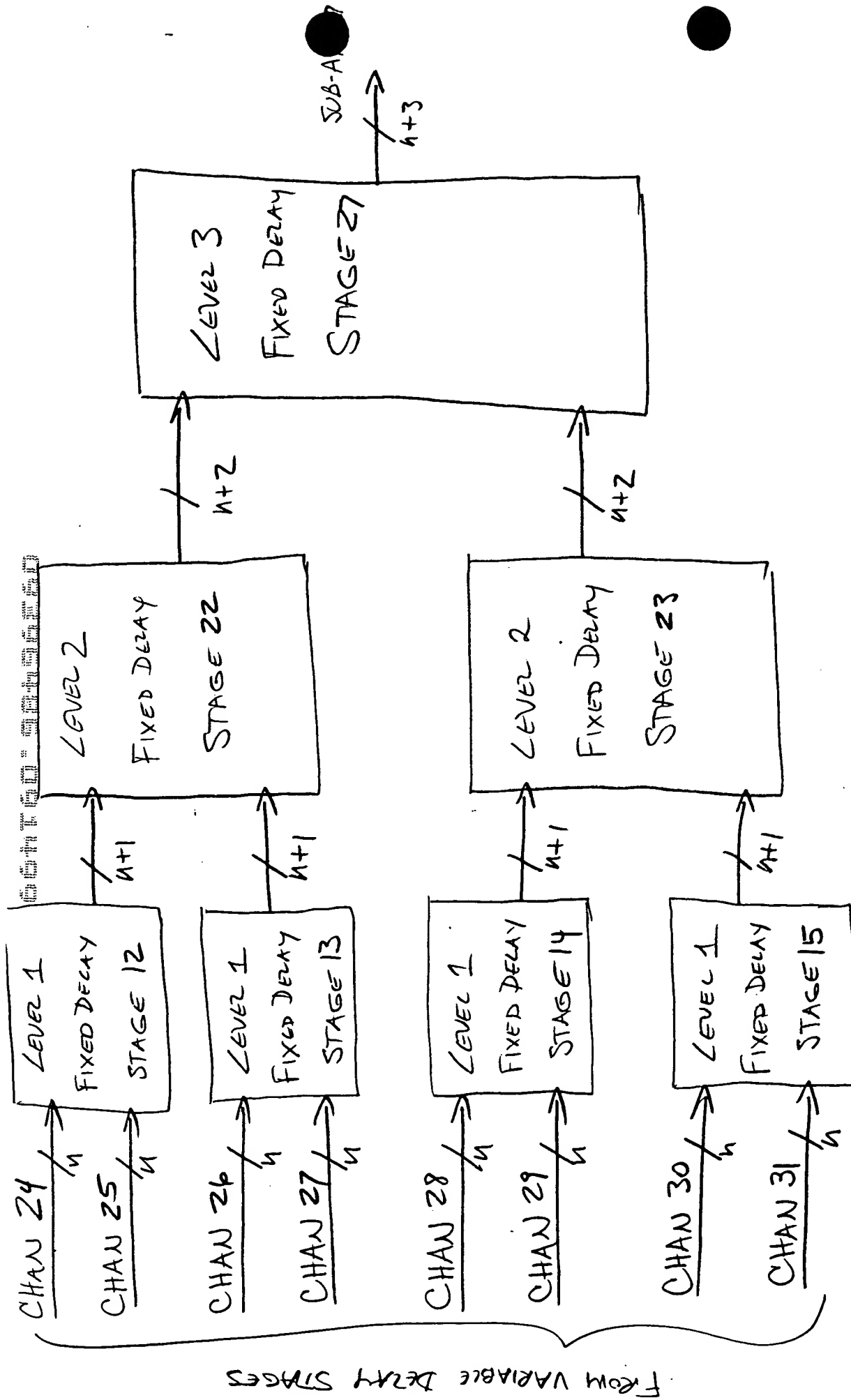


FIG 124

FROM VARIABLE DELAY STAGES

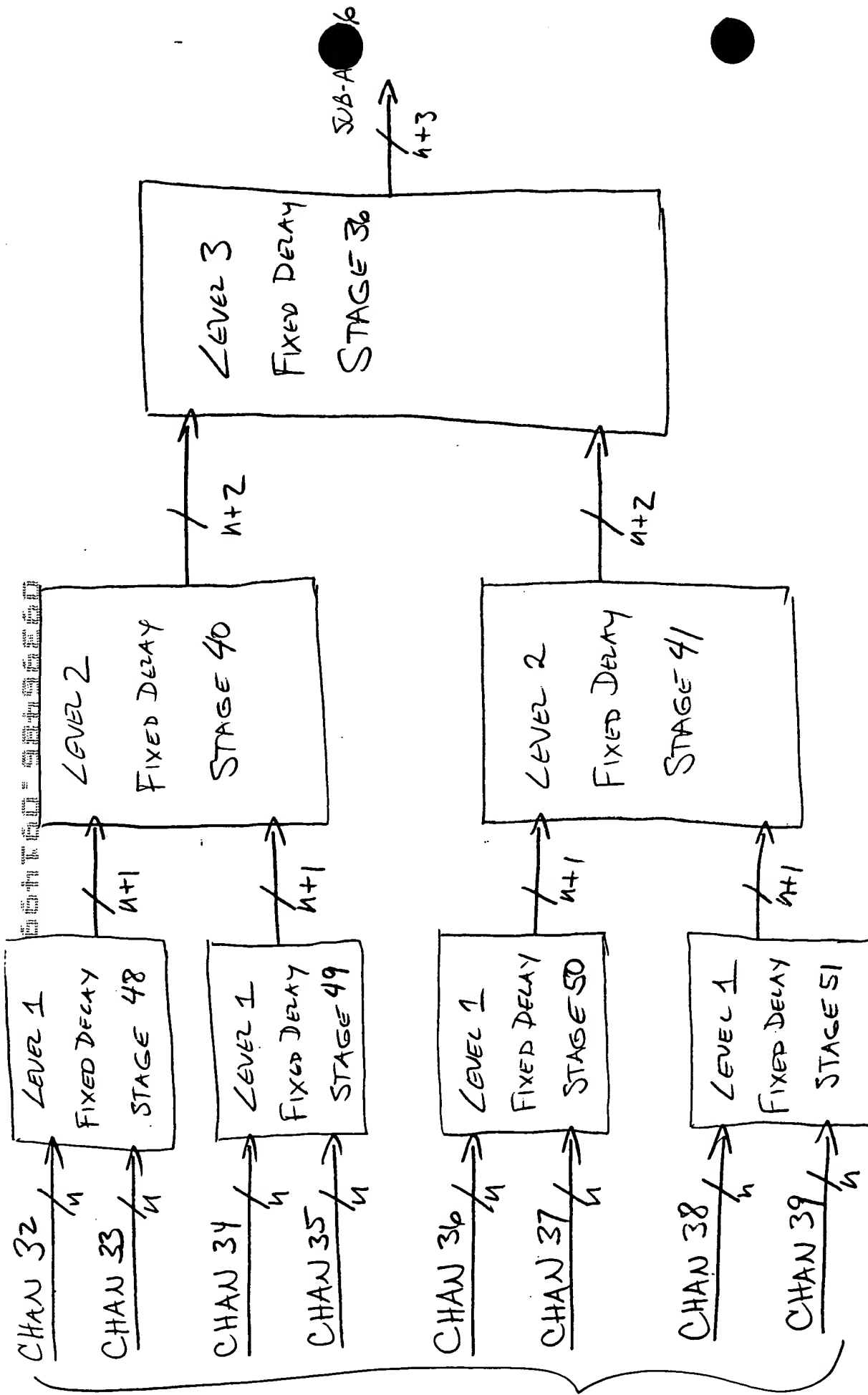


Fig 12F

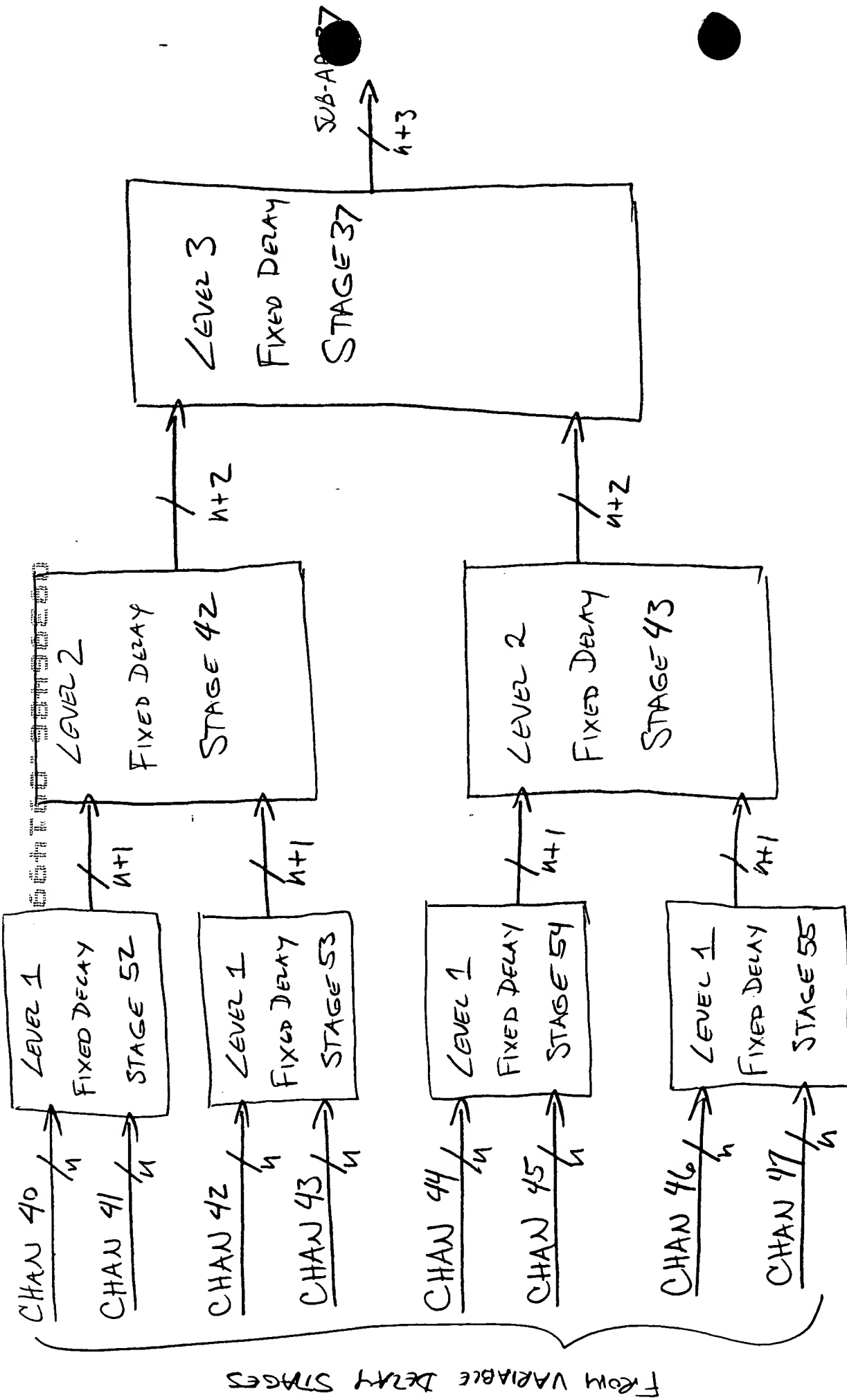


Fig 12J

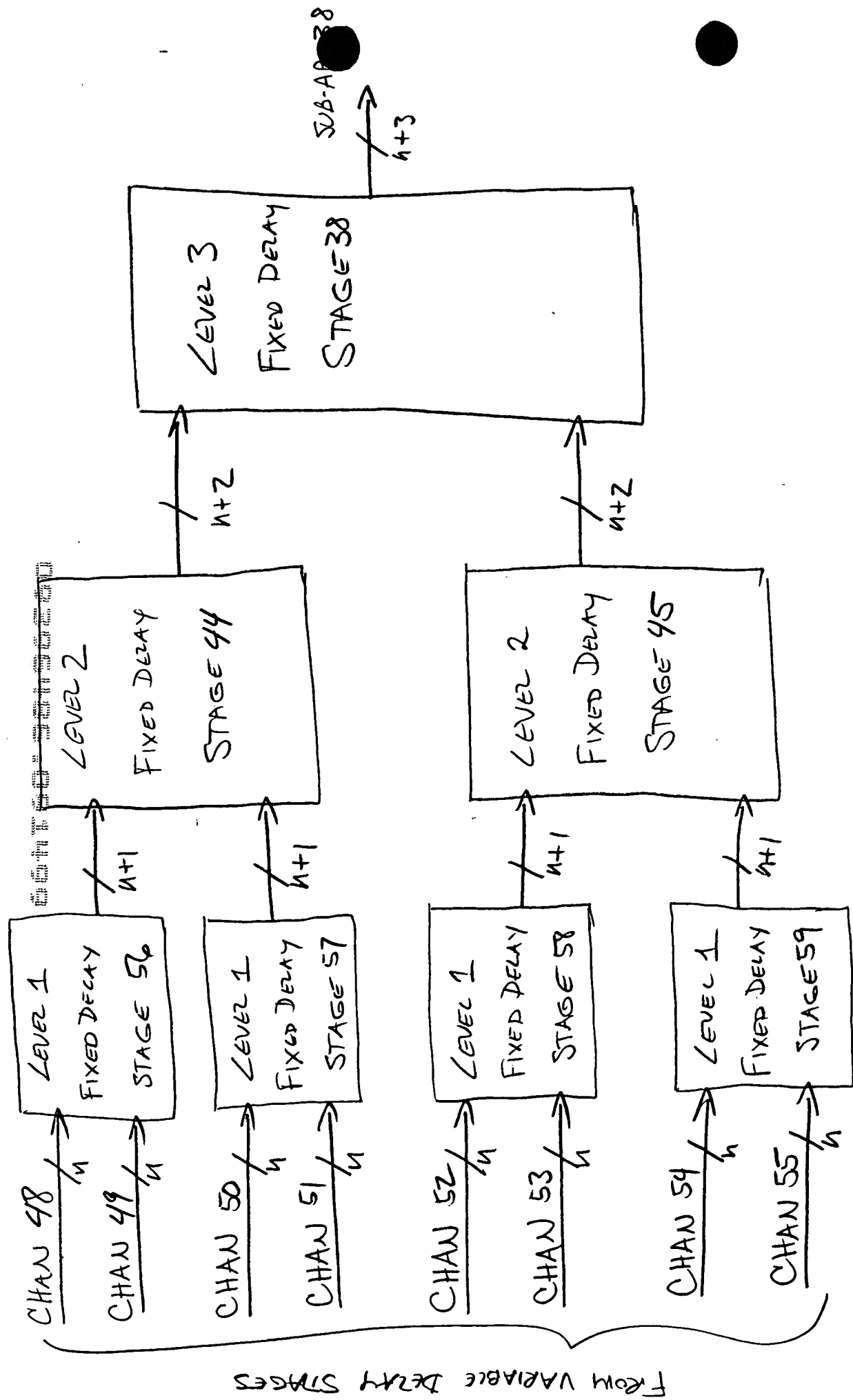


Fig 12K

FROM VARIABLE DELAY STAGES

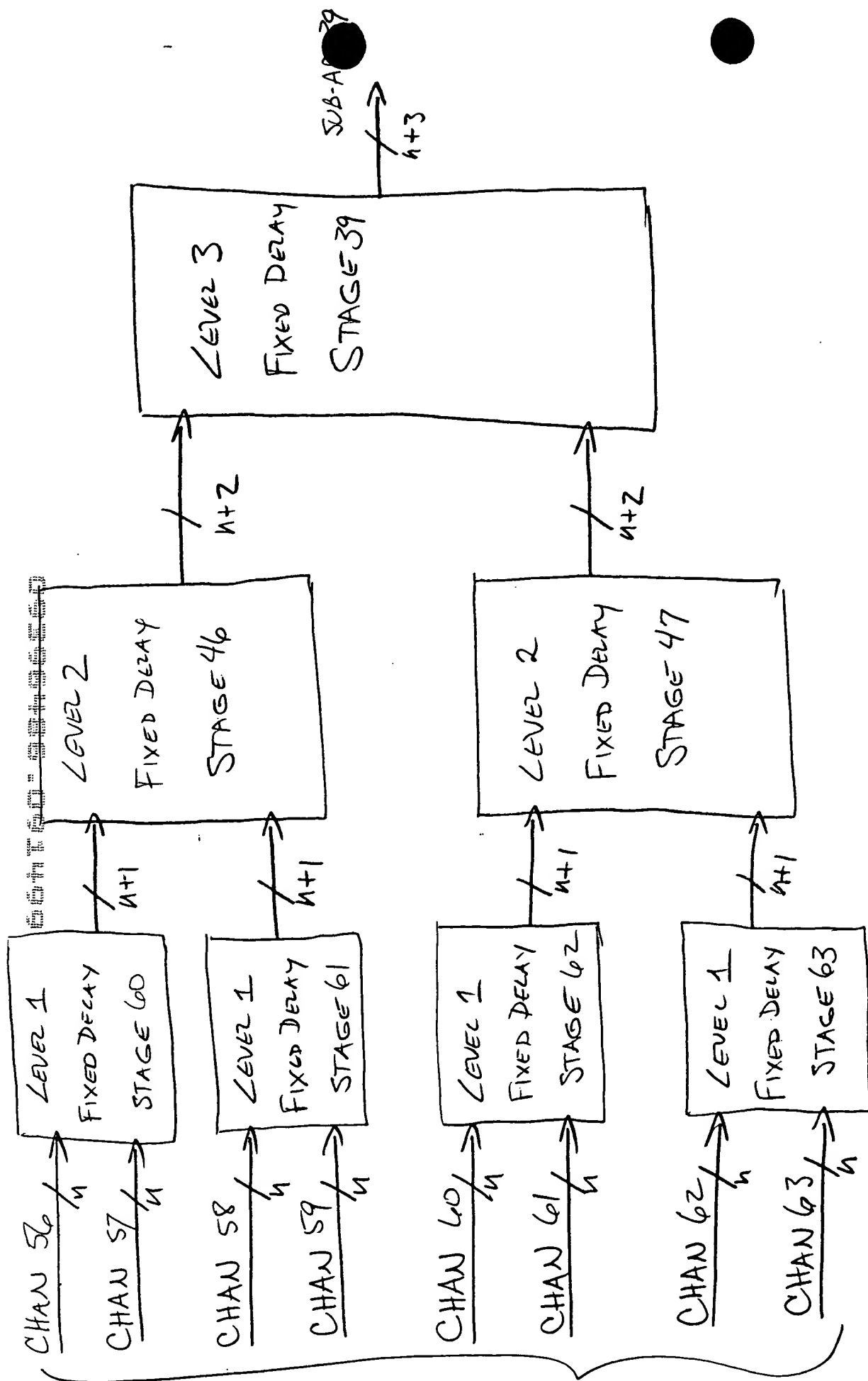
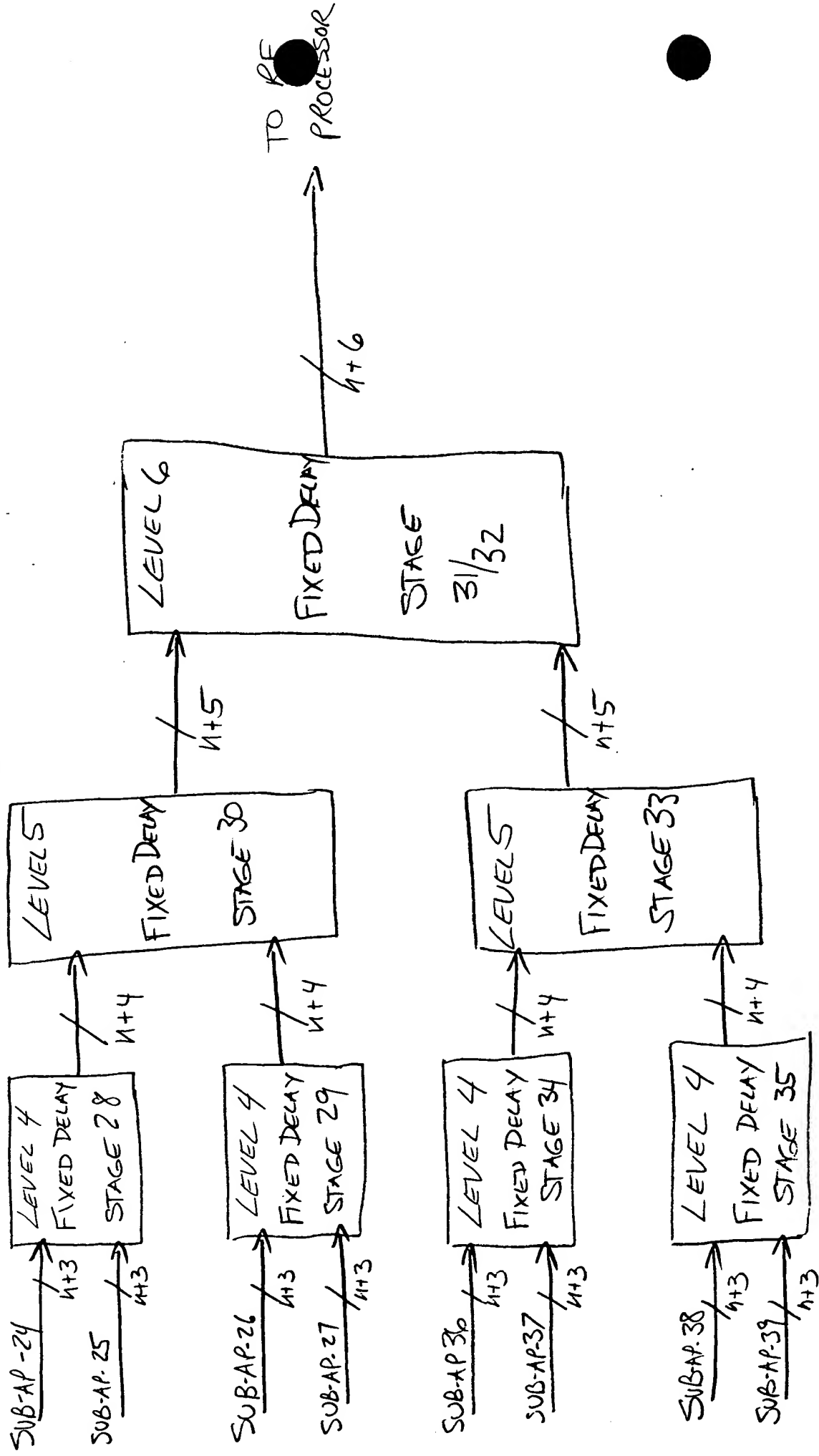


FIG 12L



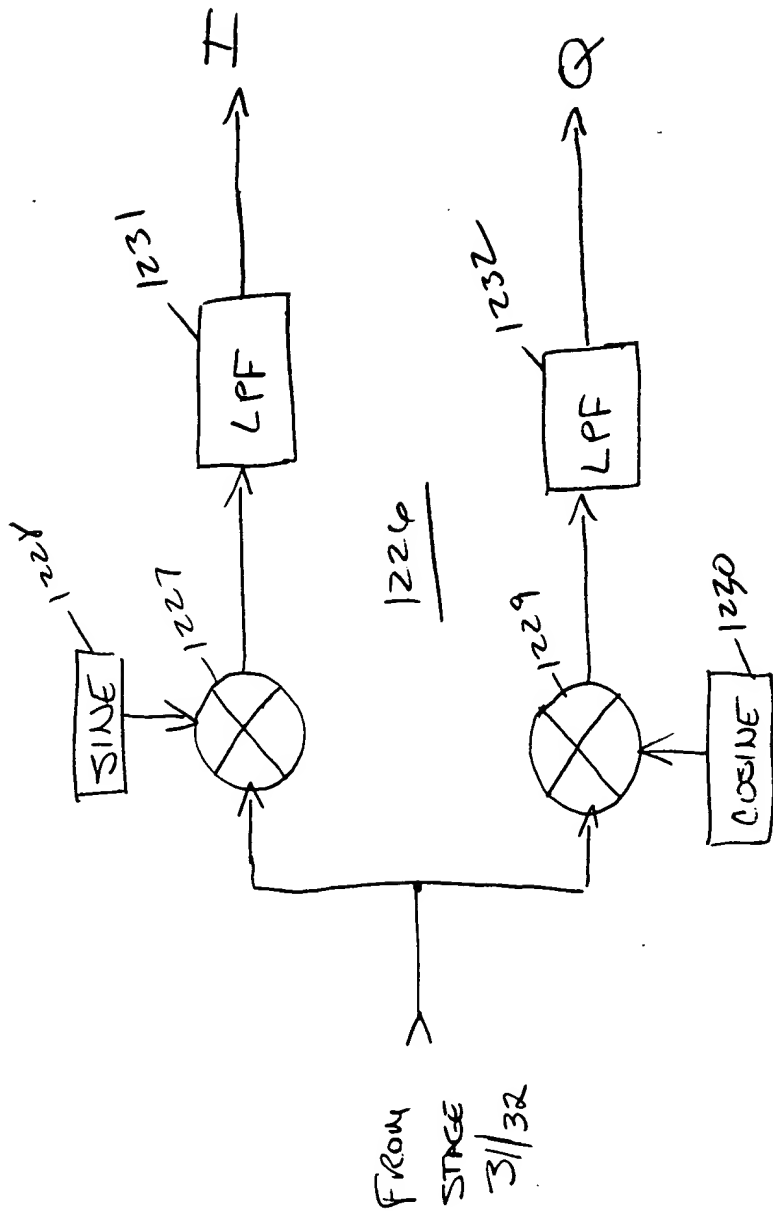


Fig 12N

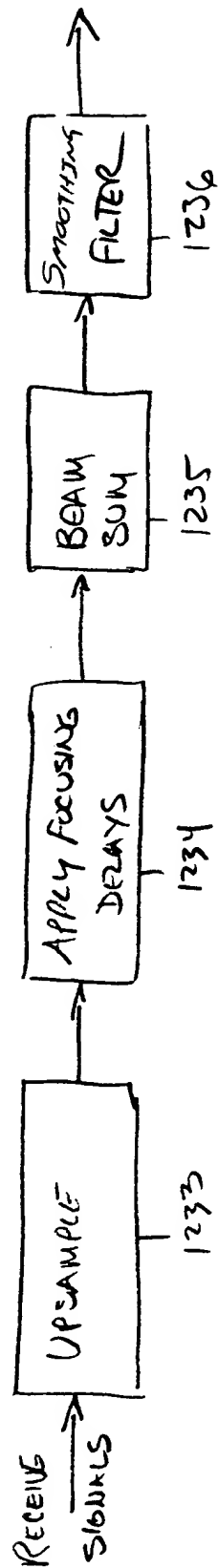


Fig 12O

1208

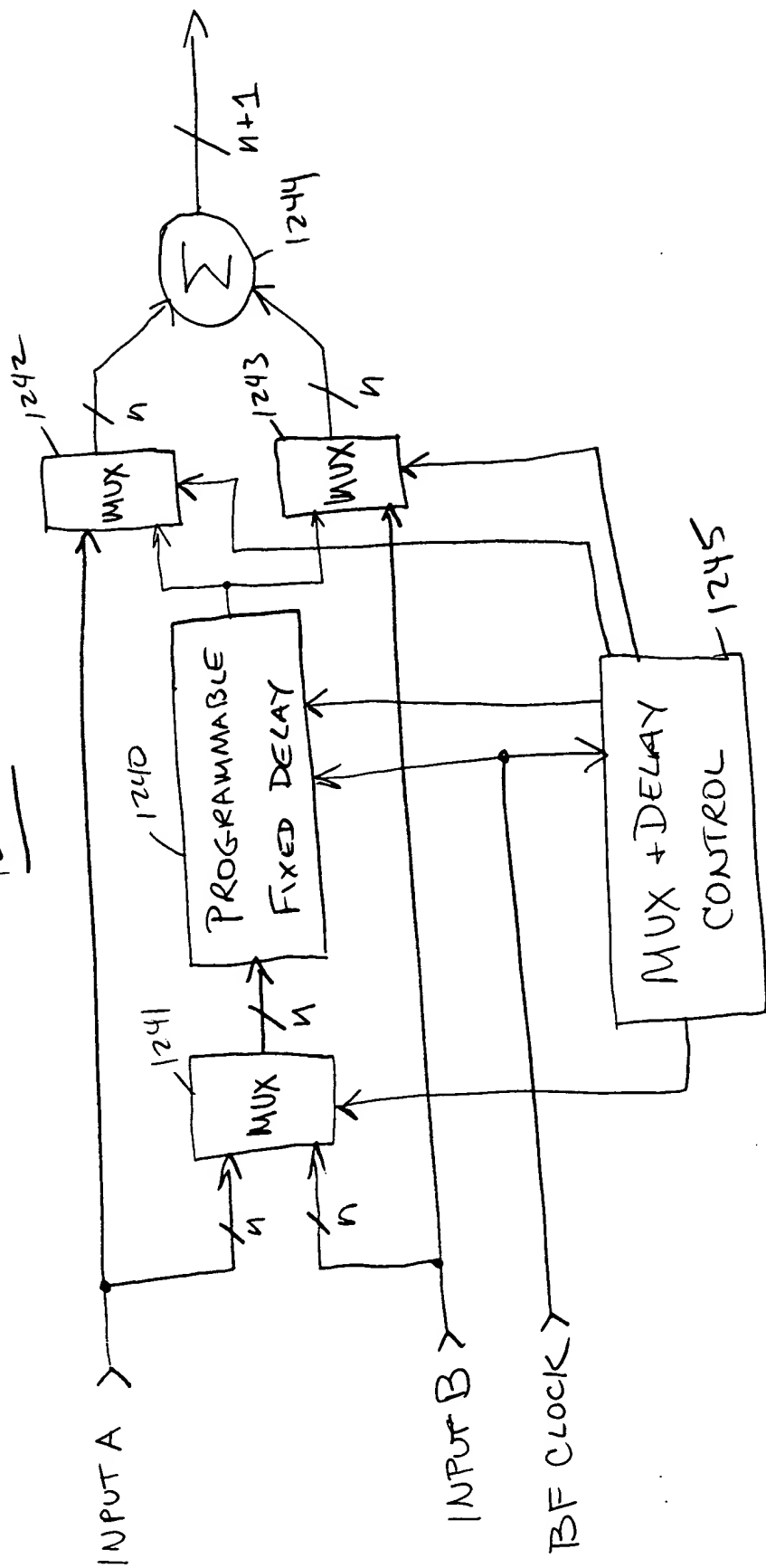


FIG 12P

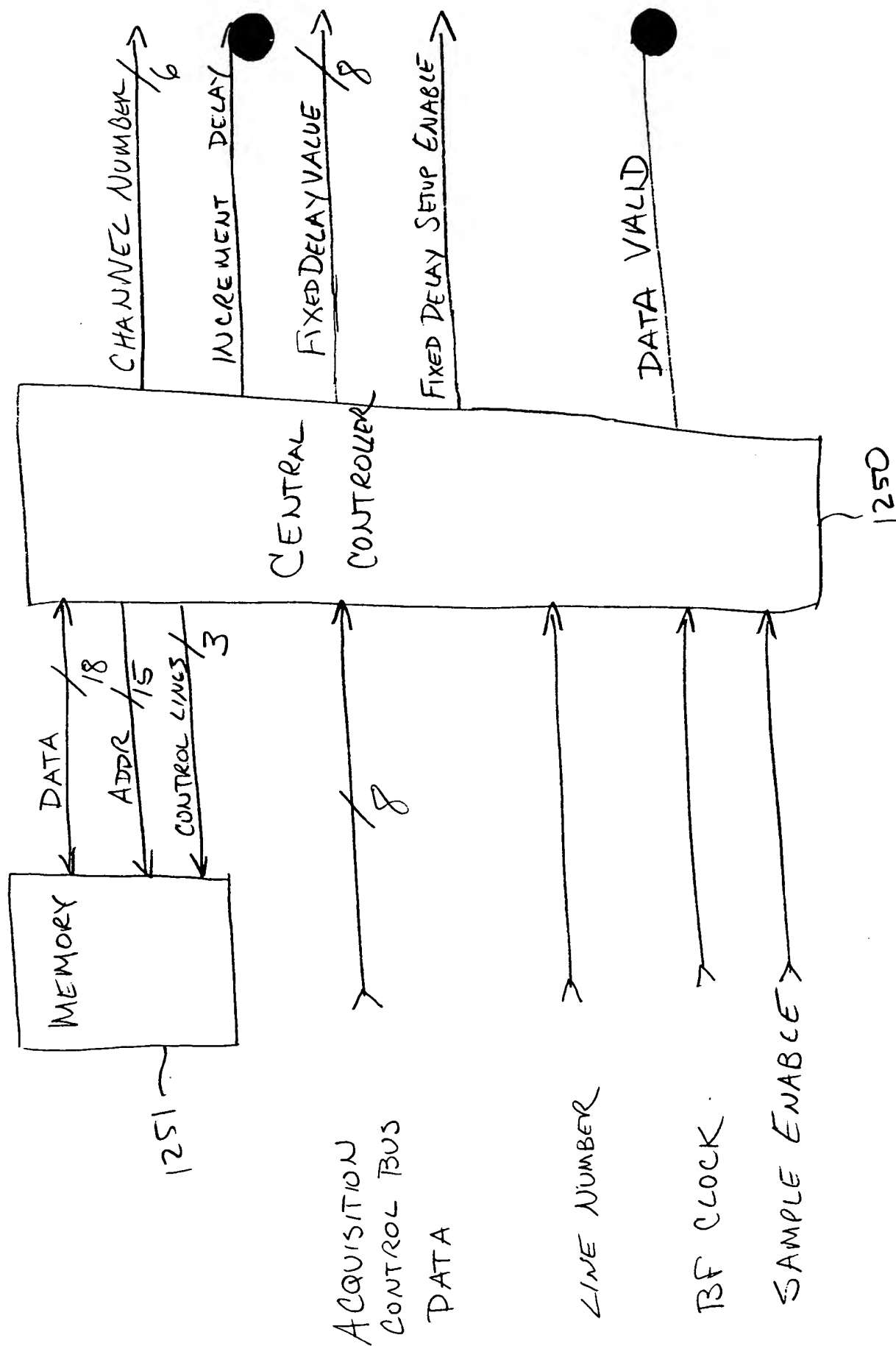


FIG. 120

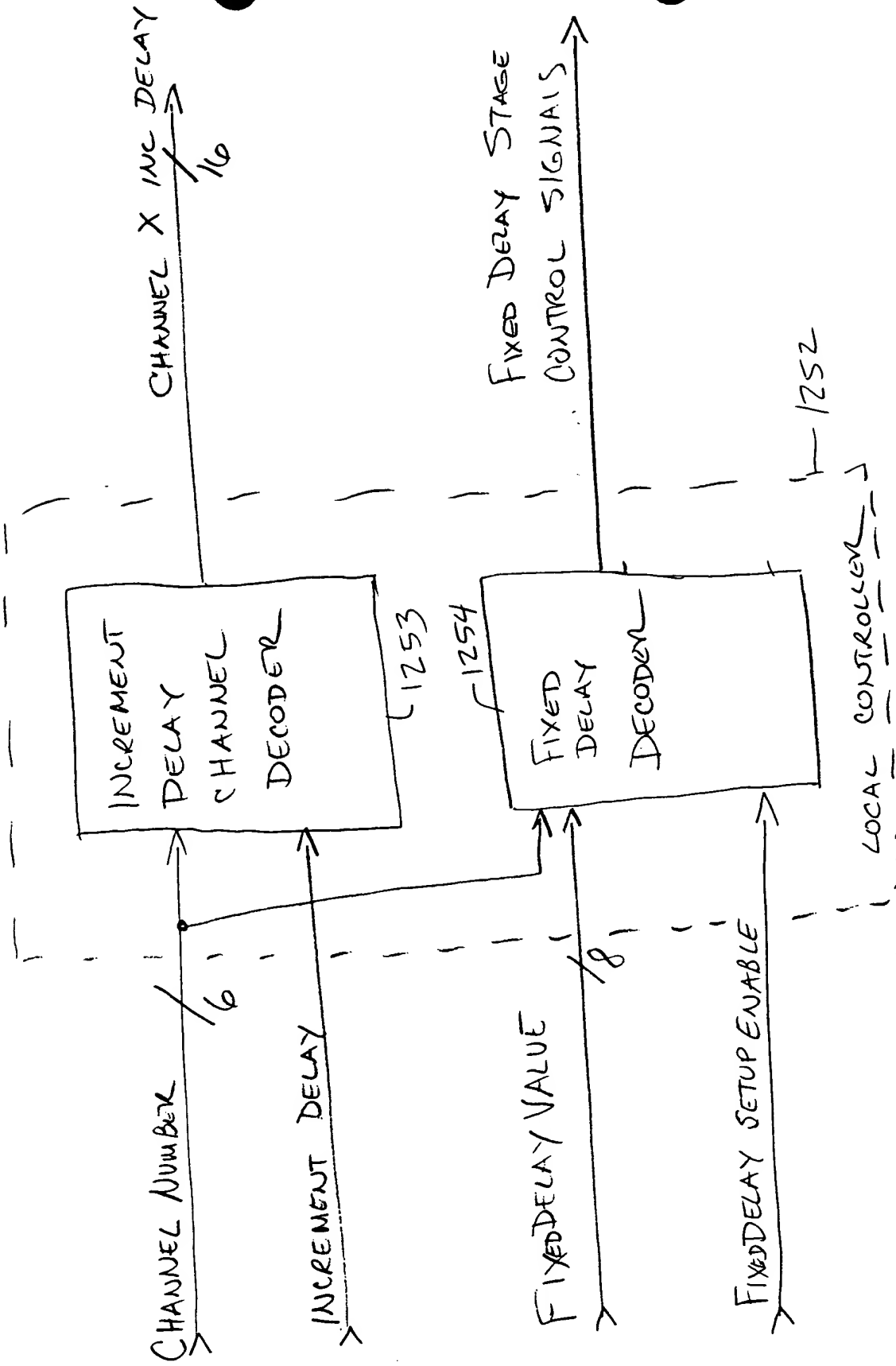


Fig 12R

Q. 10. a) b) c) d) e) f) g) h) i) j) k) l) m) n) o) p) q) r) s) t) u) v) w) x) y) z)

LEVEL	MAX DELAY LENGTH (CLOCK CYCLES)	NO BITS IN	NO BITS OUT	NO STAGES
1	3	8	9	32
2	6	9	10	16
3	12	10	11	8
4	24	11	12	4
5	48	12	13	2
6	96	13	14	1

Fig 125

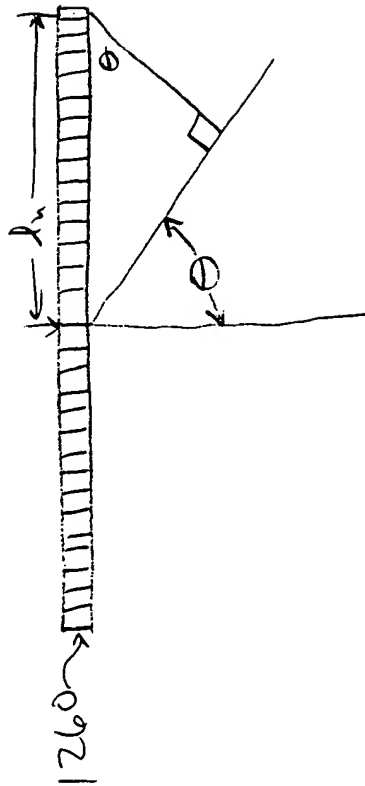
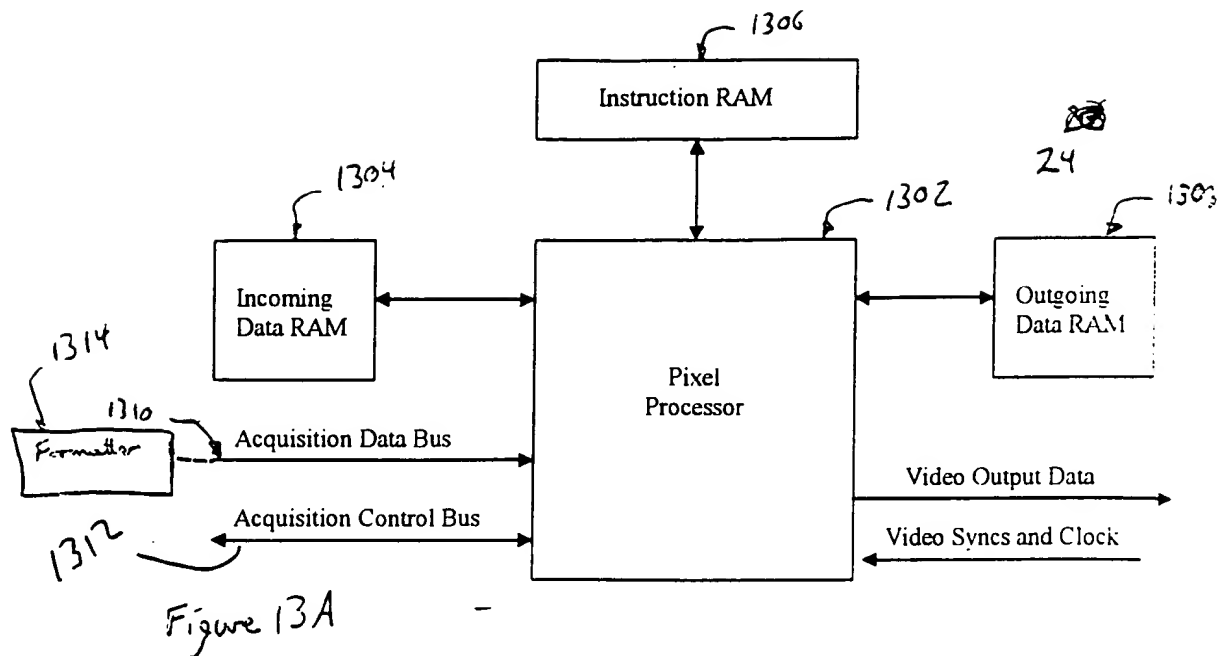


Fig 127



2025 RELEASE UNDER E.O. 14176

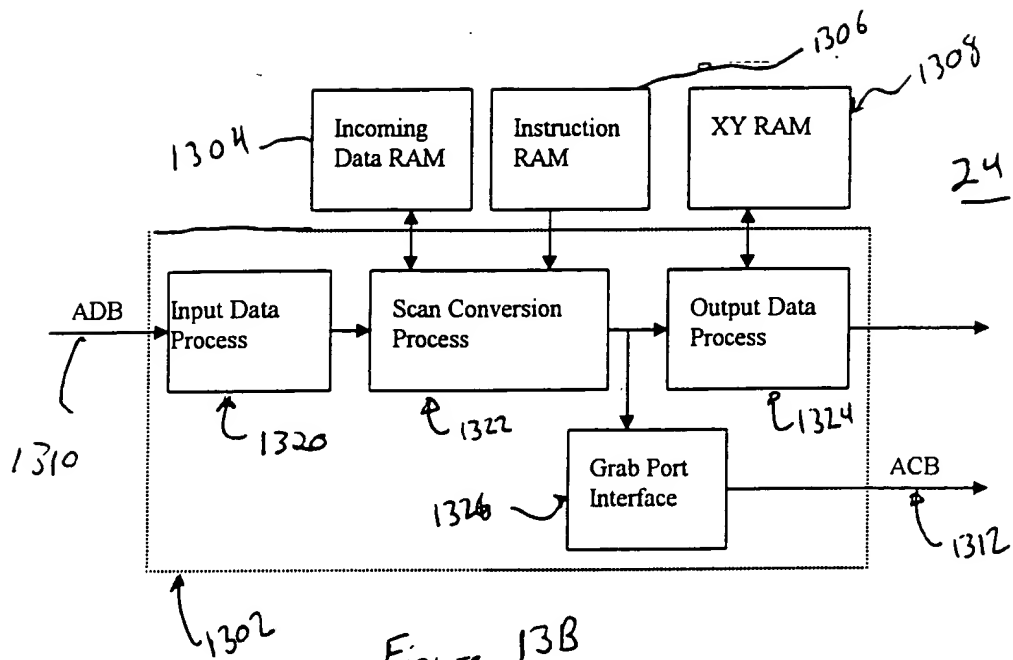
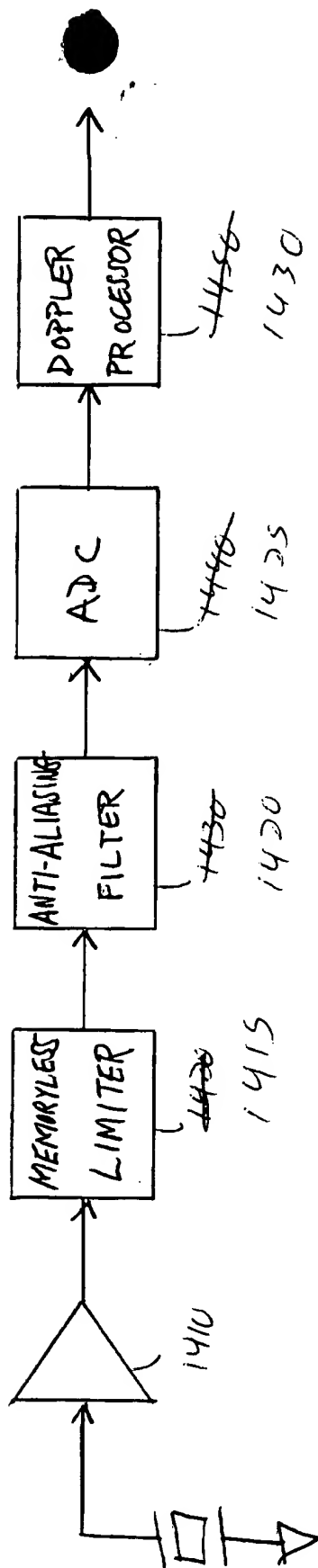


Figure 13B

1400

AMPLIFIER



TRANSDUCER

FIGURE 6 14